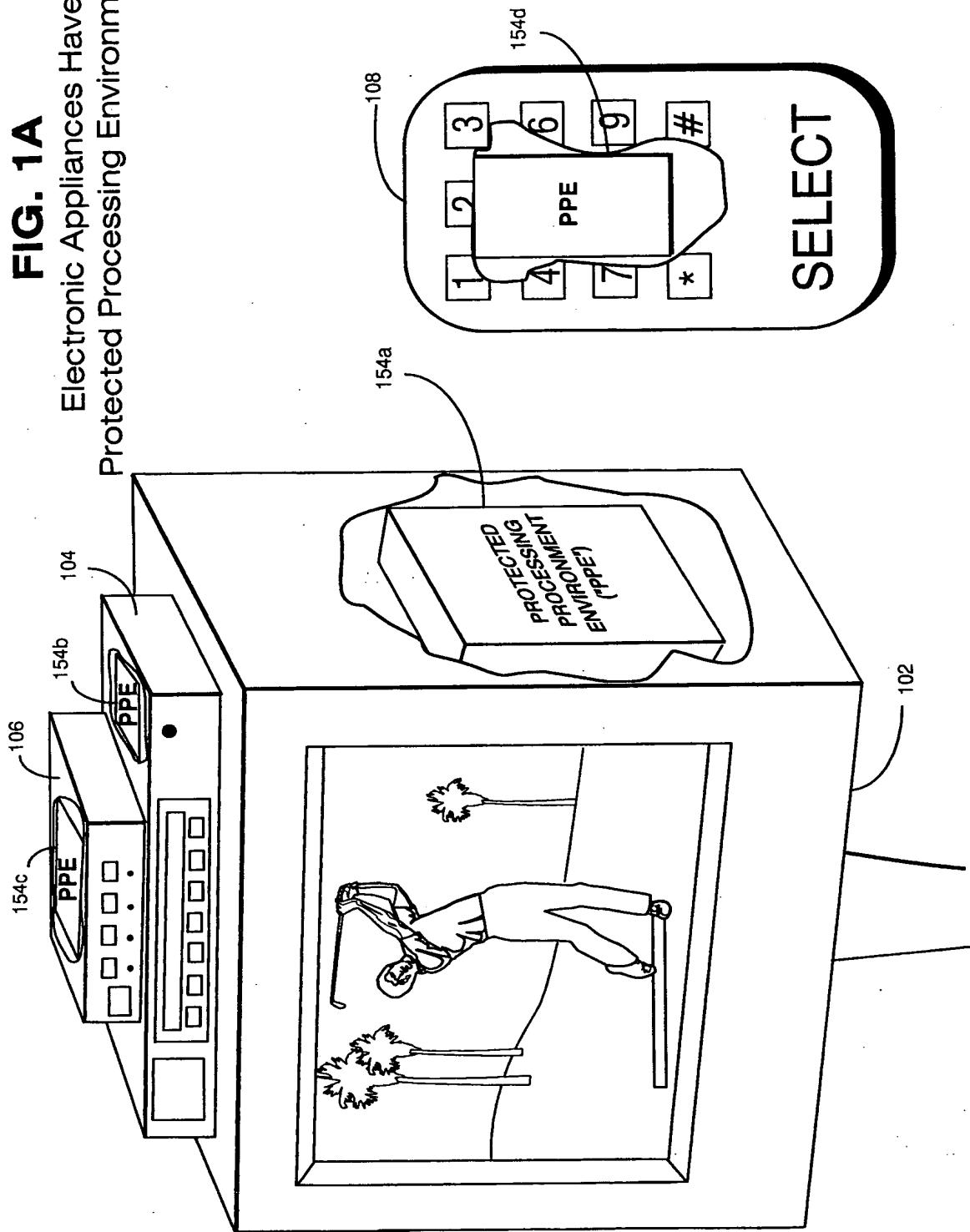
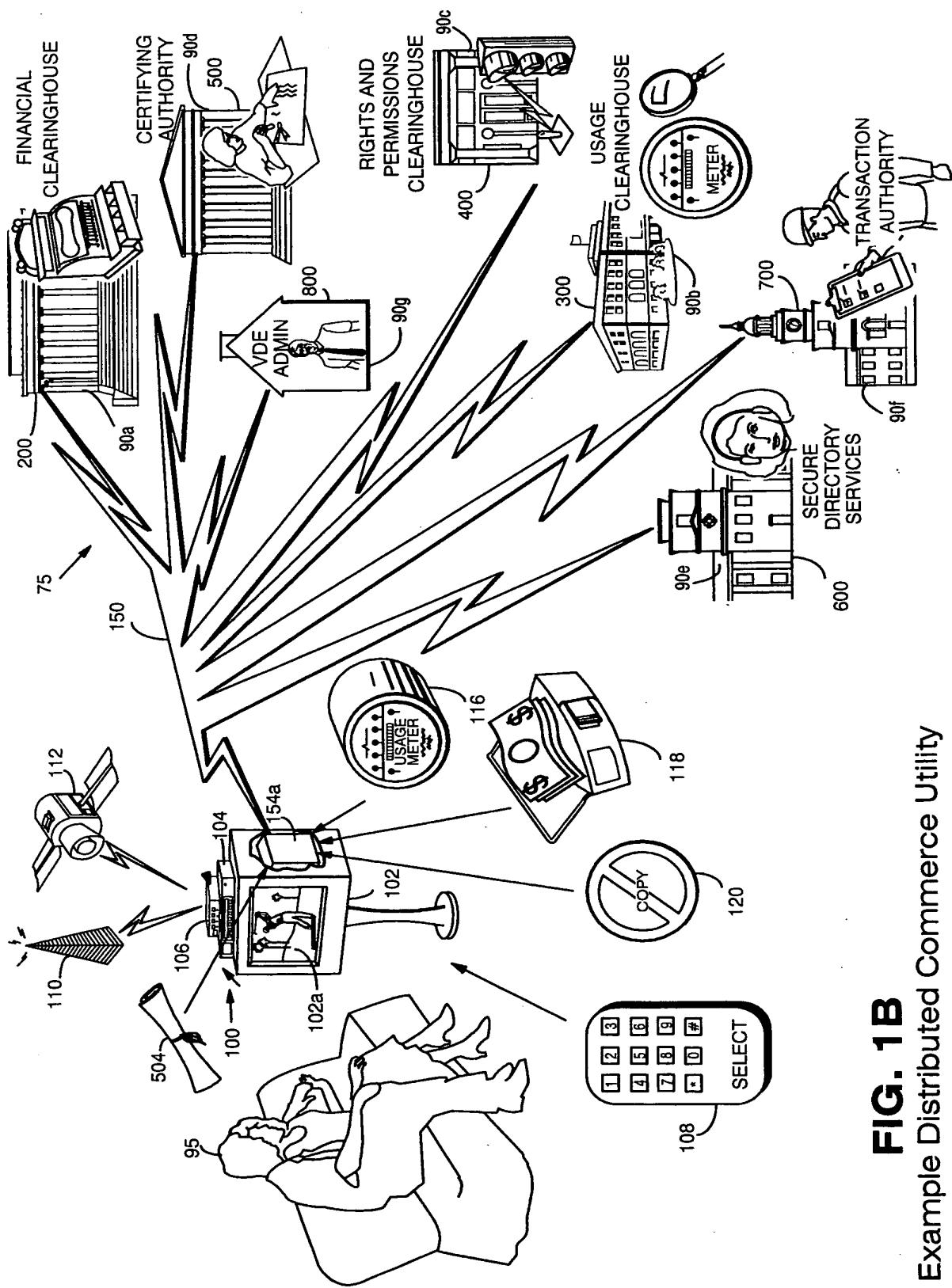


**FIG. 1**

**FIG. 1A**  
Electronic Appliances Have  
Protected Processing Environments





**FIG. 1B**  
Example Distributed Commerce Utility

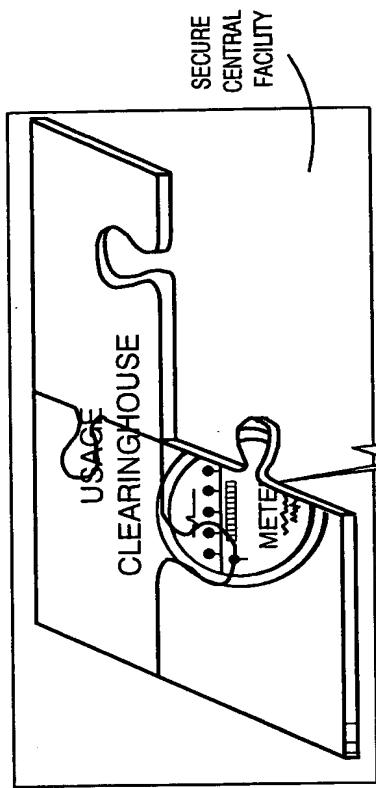


FIG. 2B

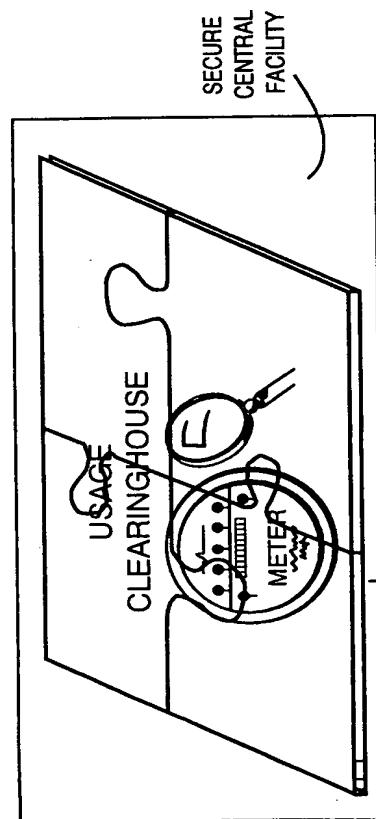
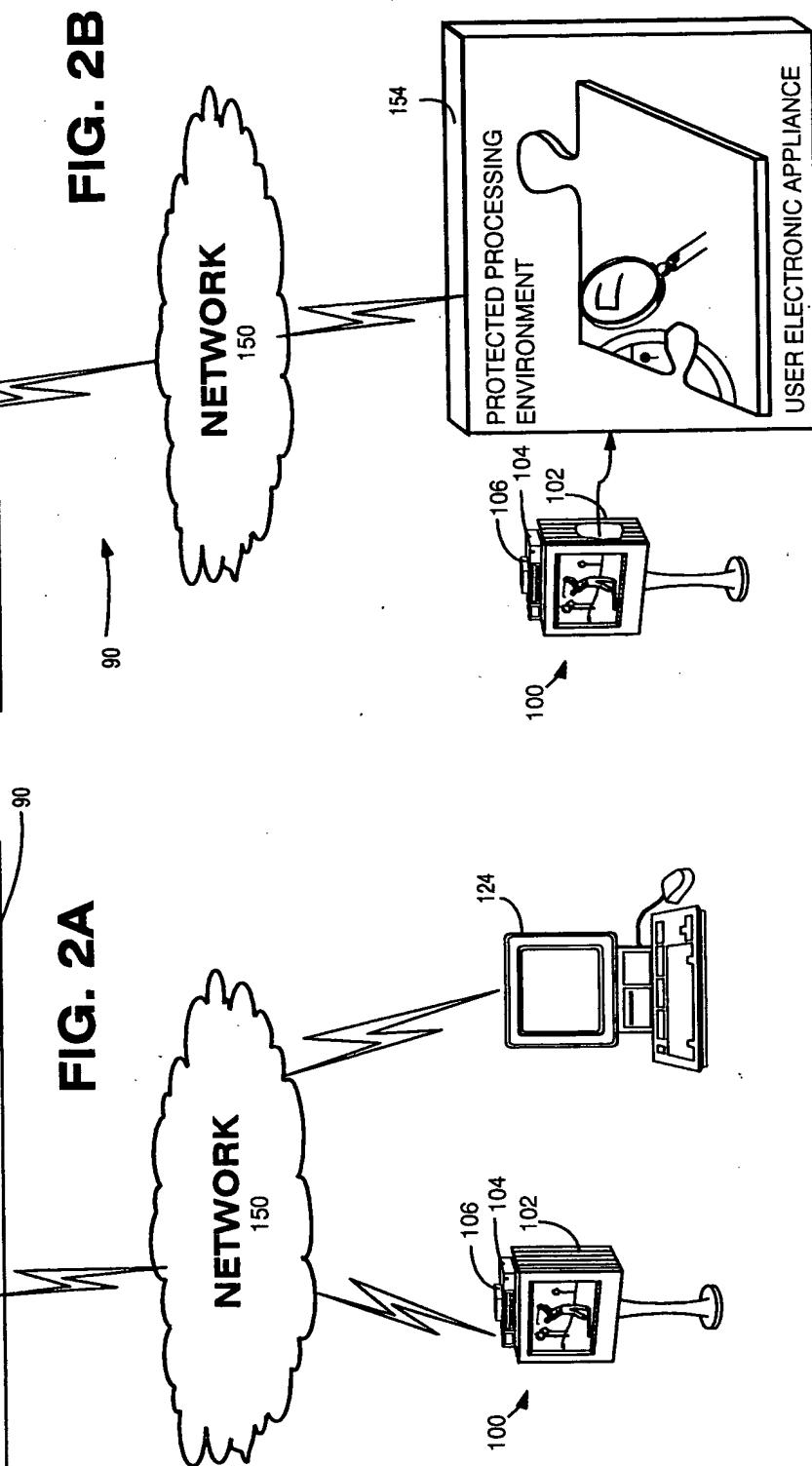
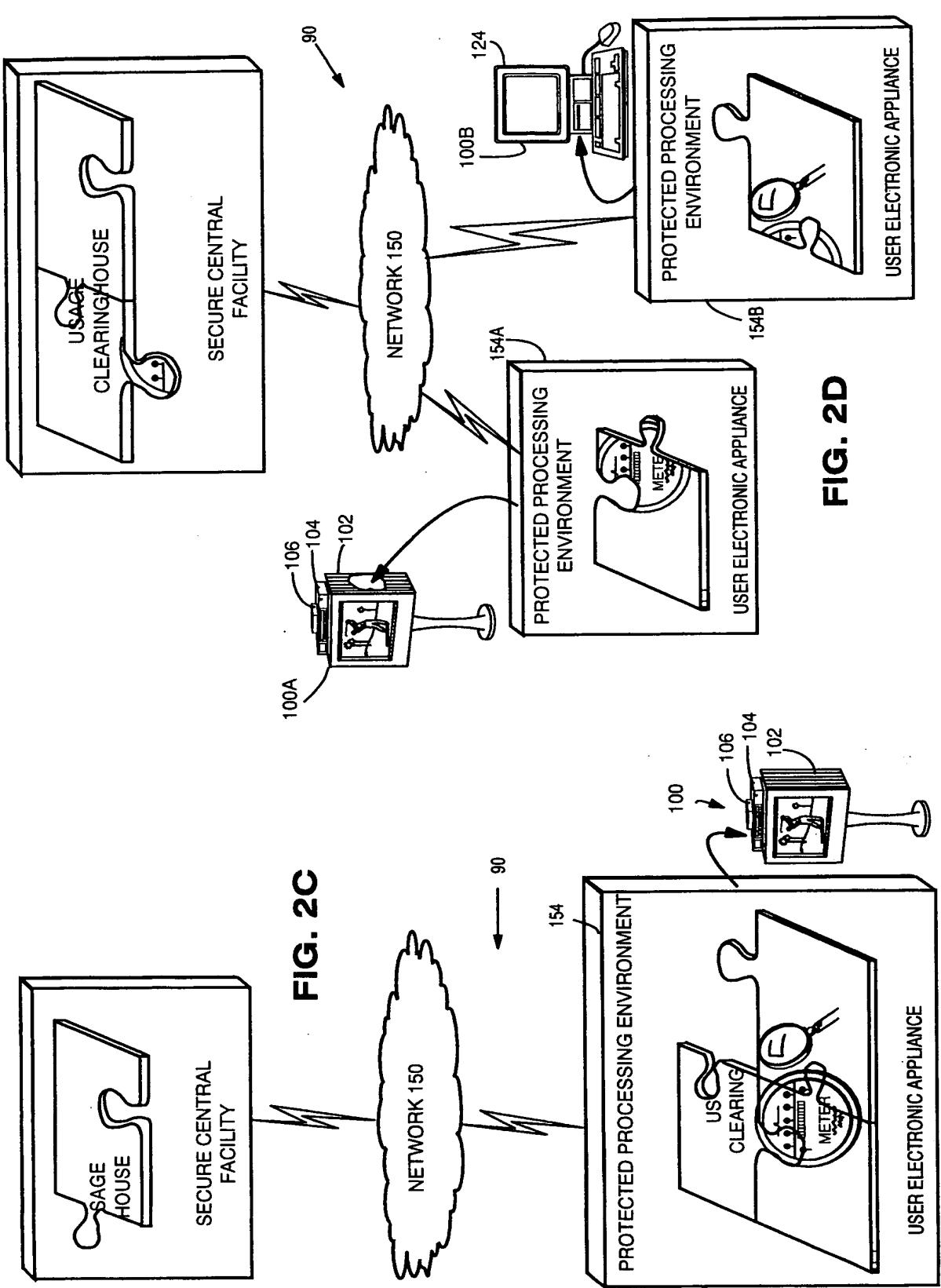
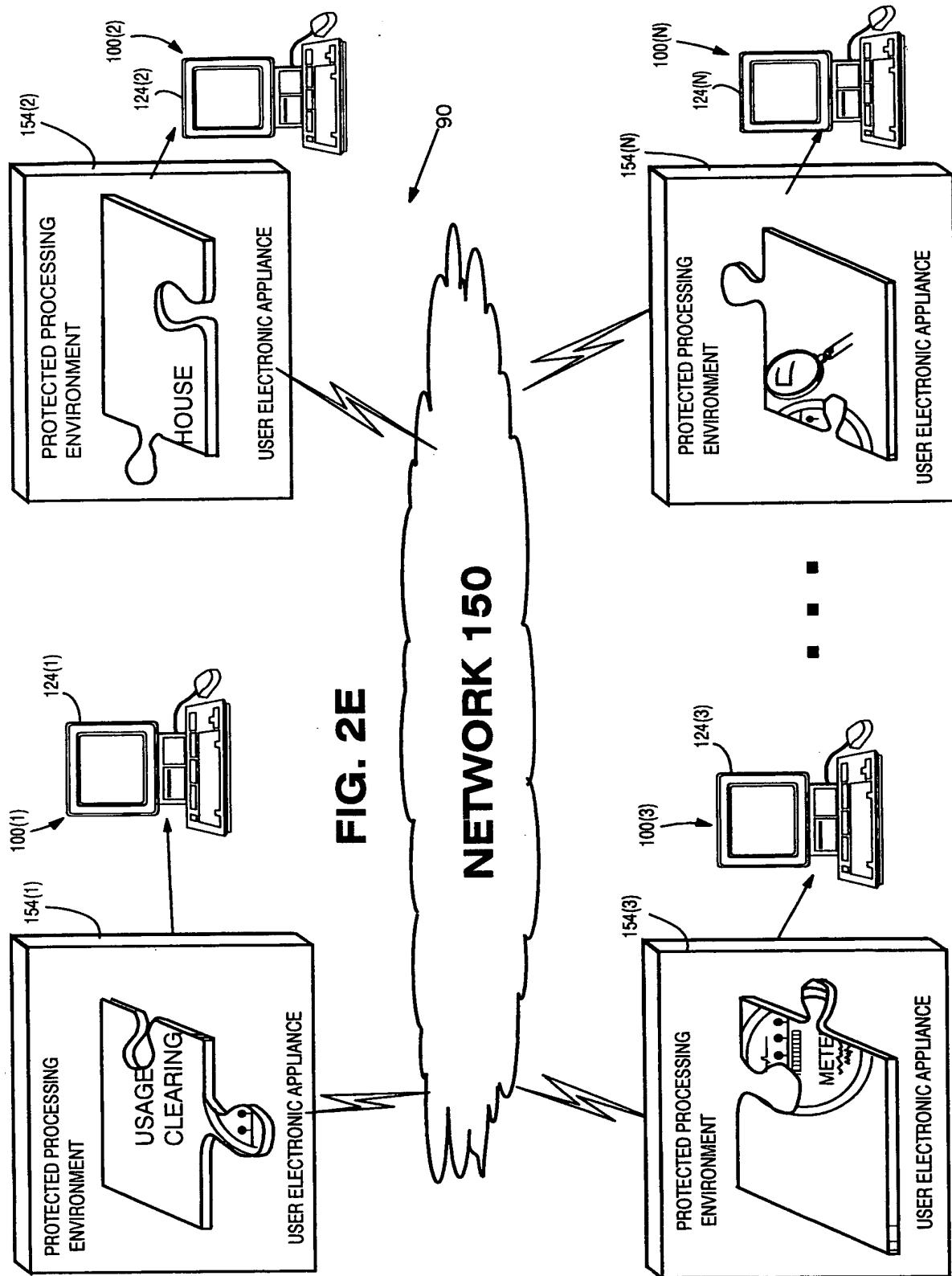


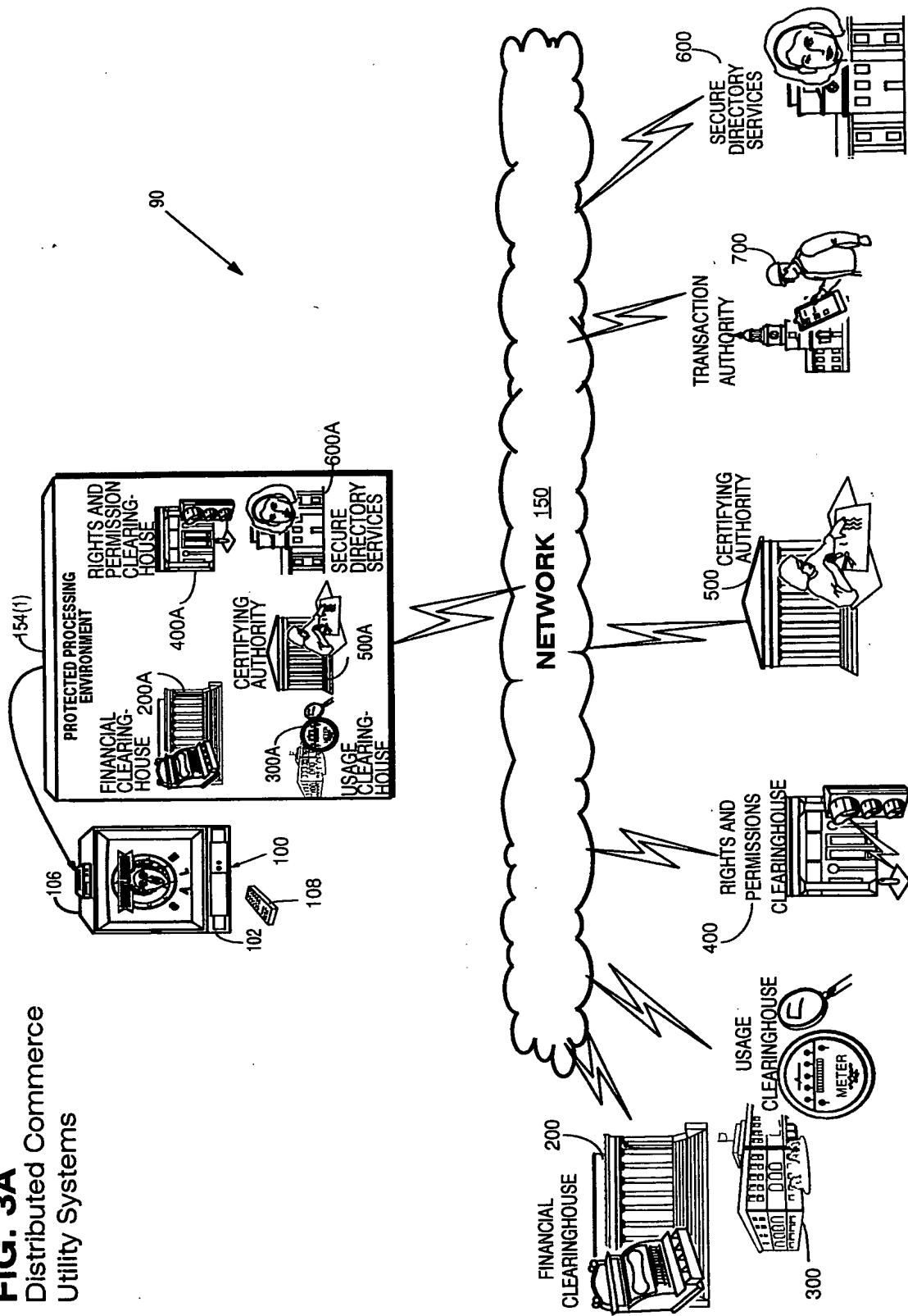
FIG. 2A



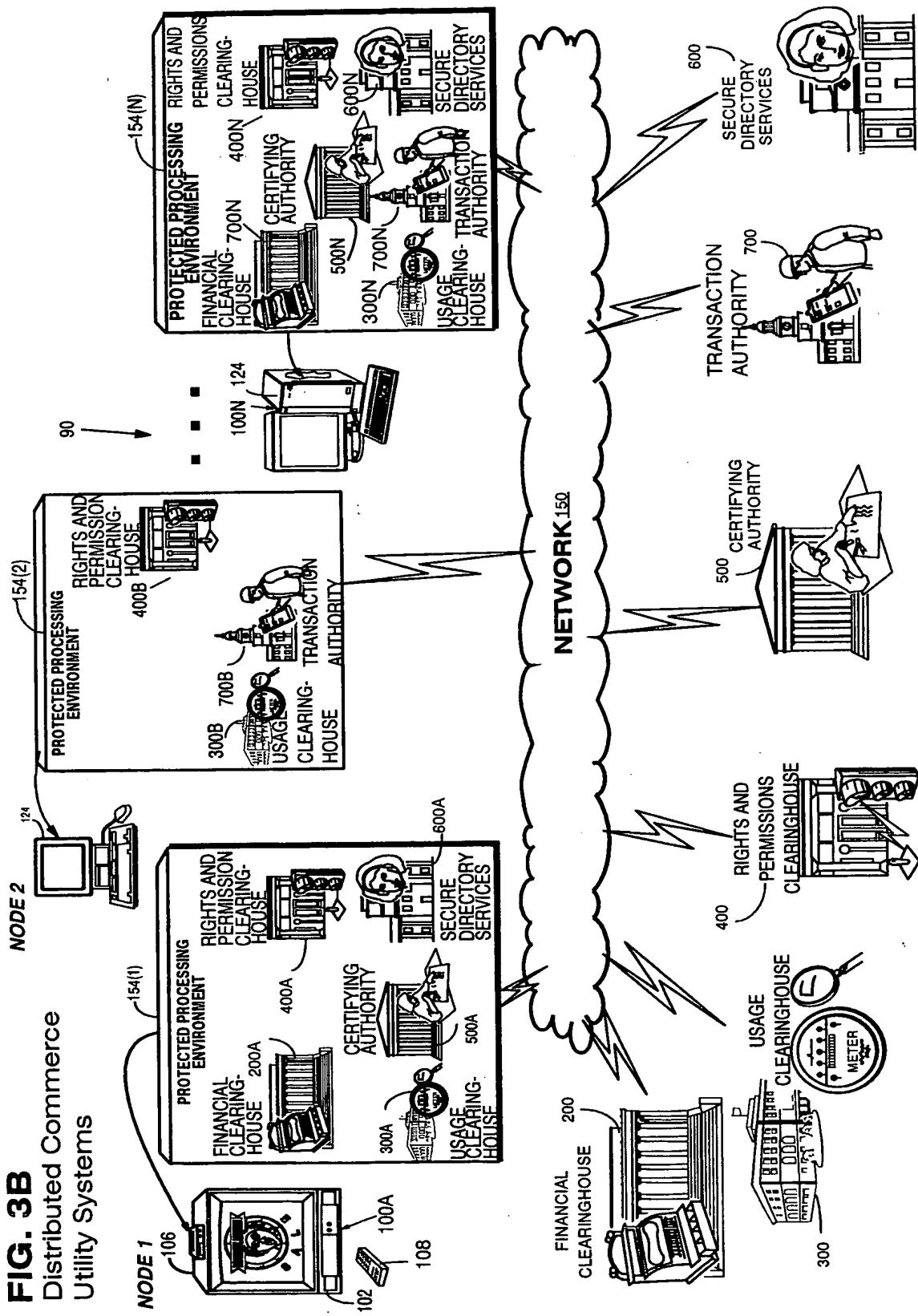


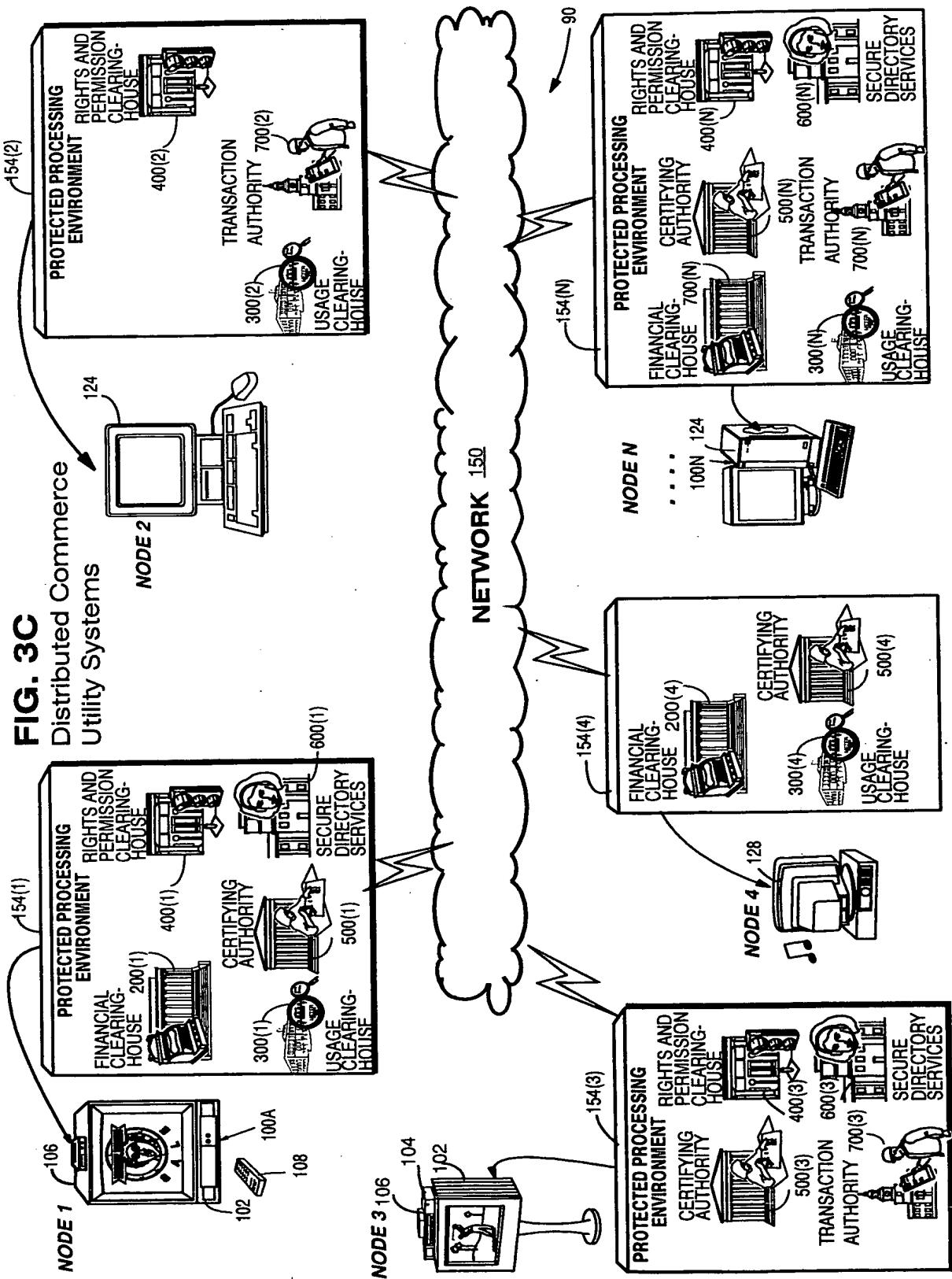


**FIG. 3A**  
Distributed Commerce  
Utility Systems

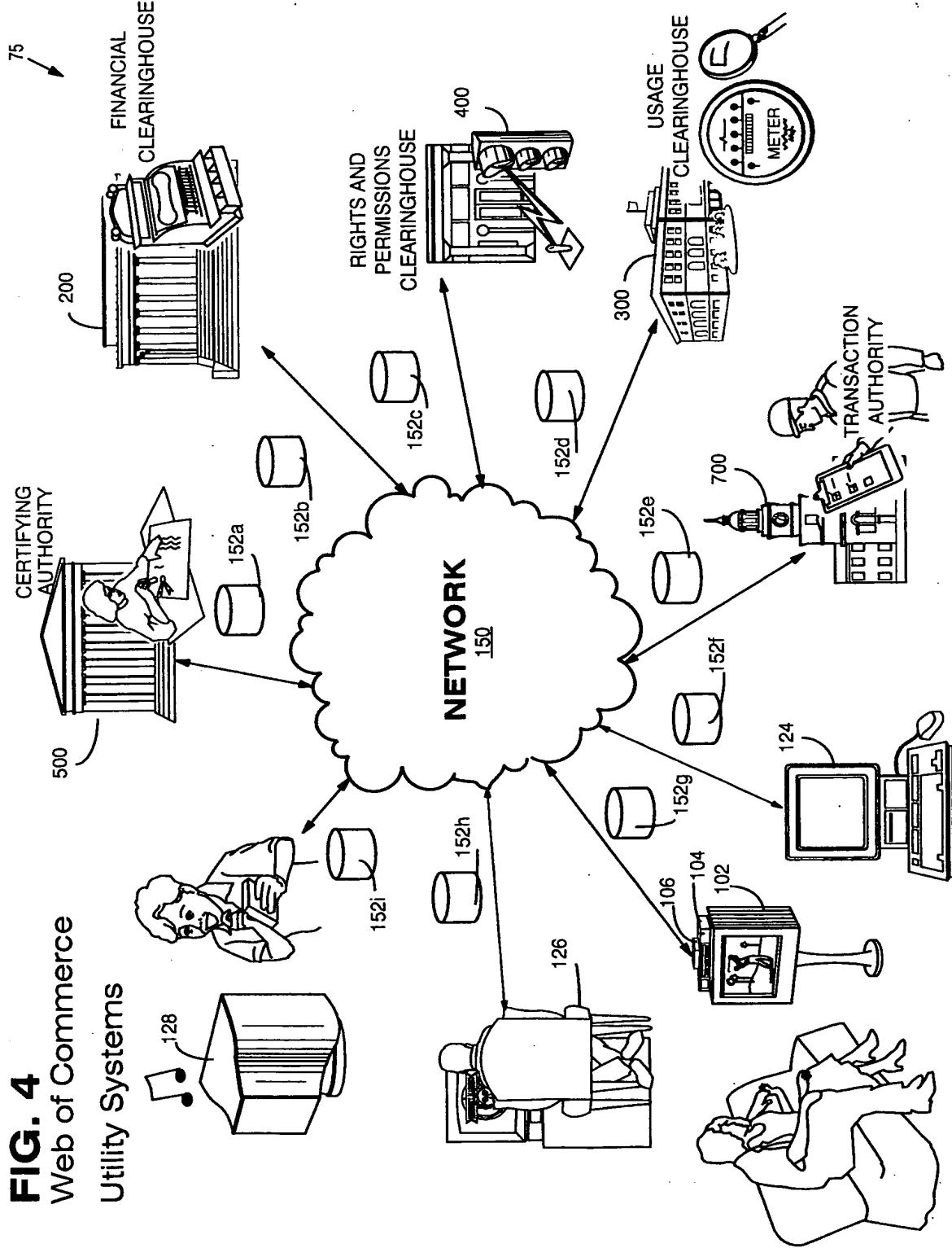


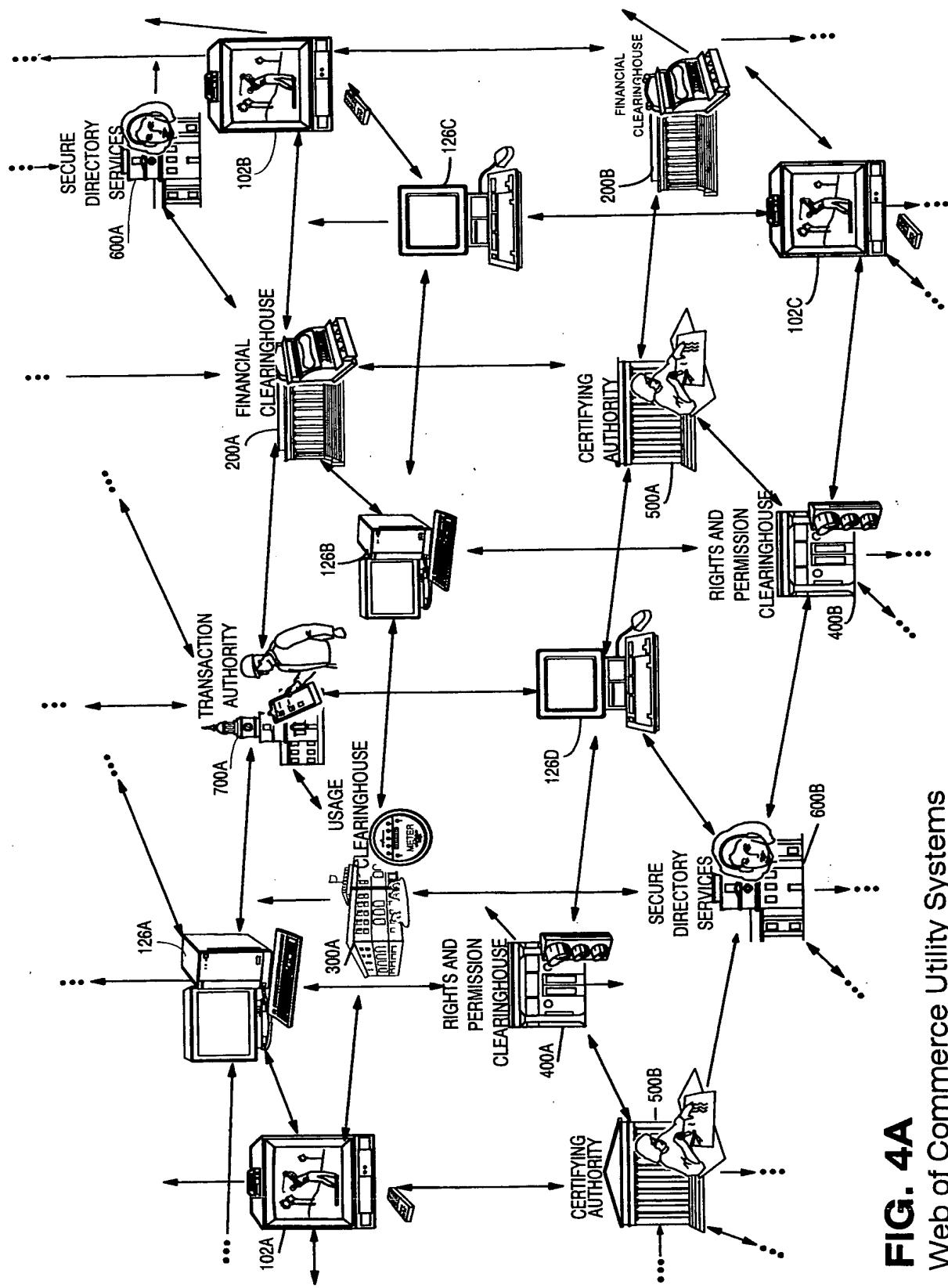
## **FIG. 3B** Distributed Commerce Utility Systems



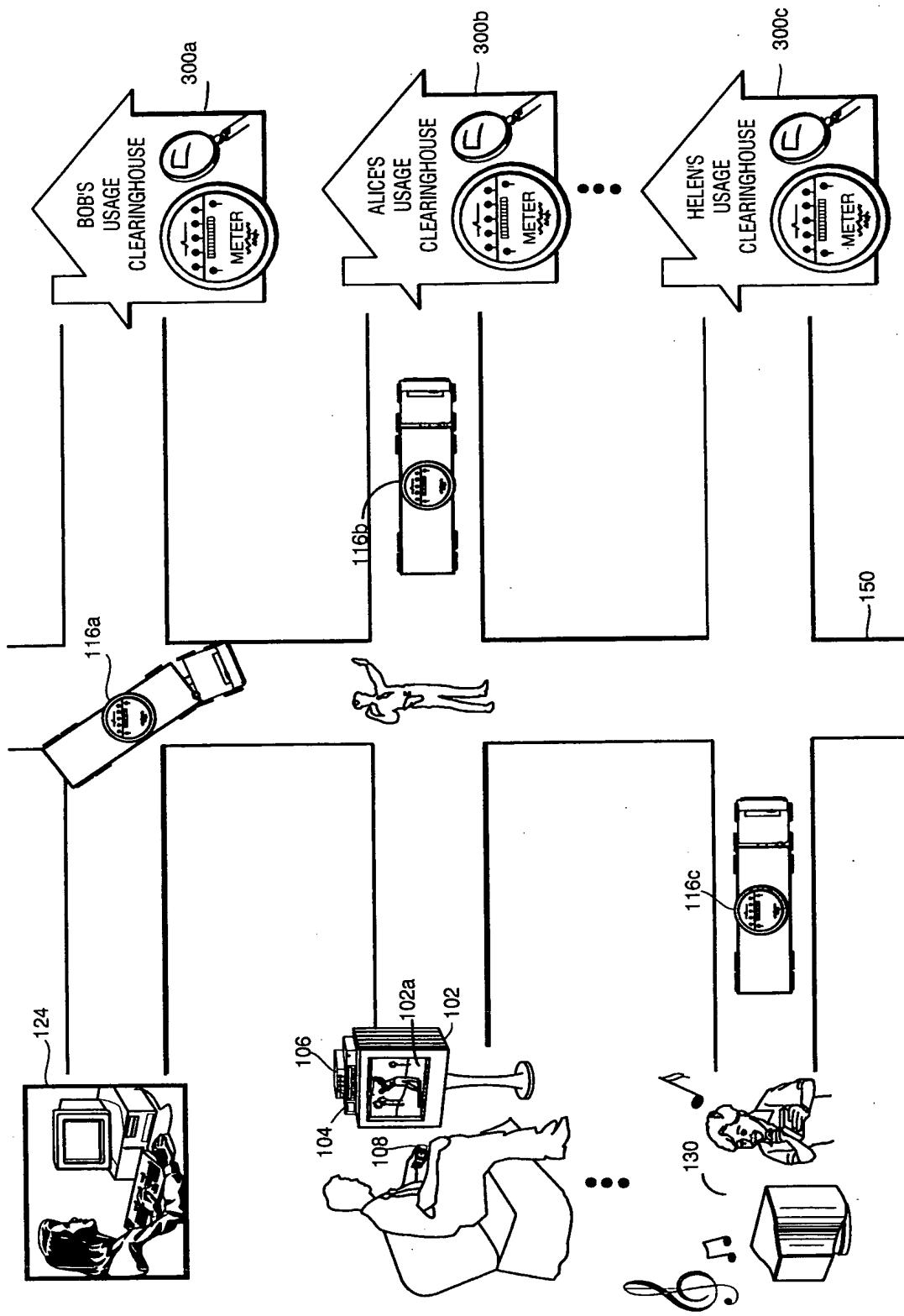


**FIG. 4**  
Web of Commerce  
Utility Systems



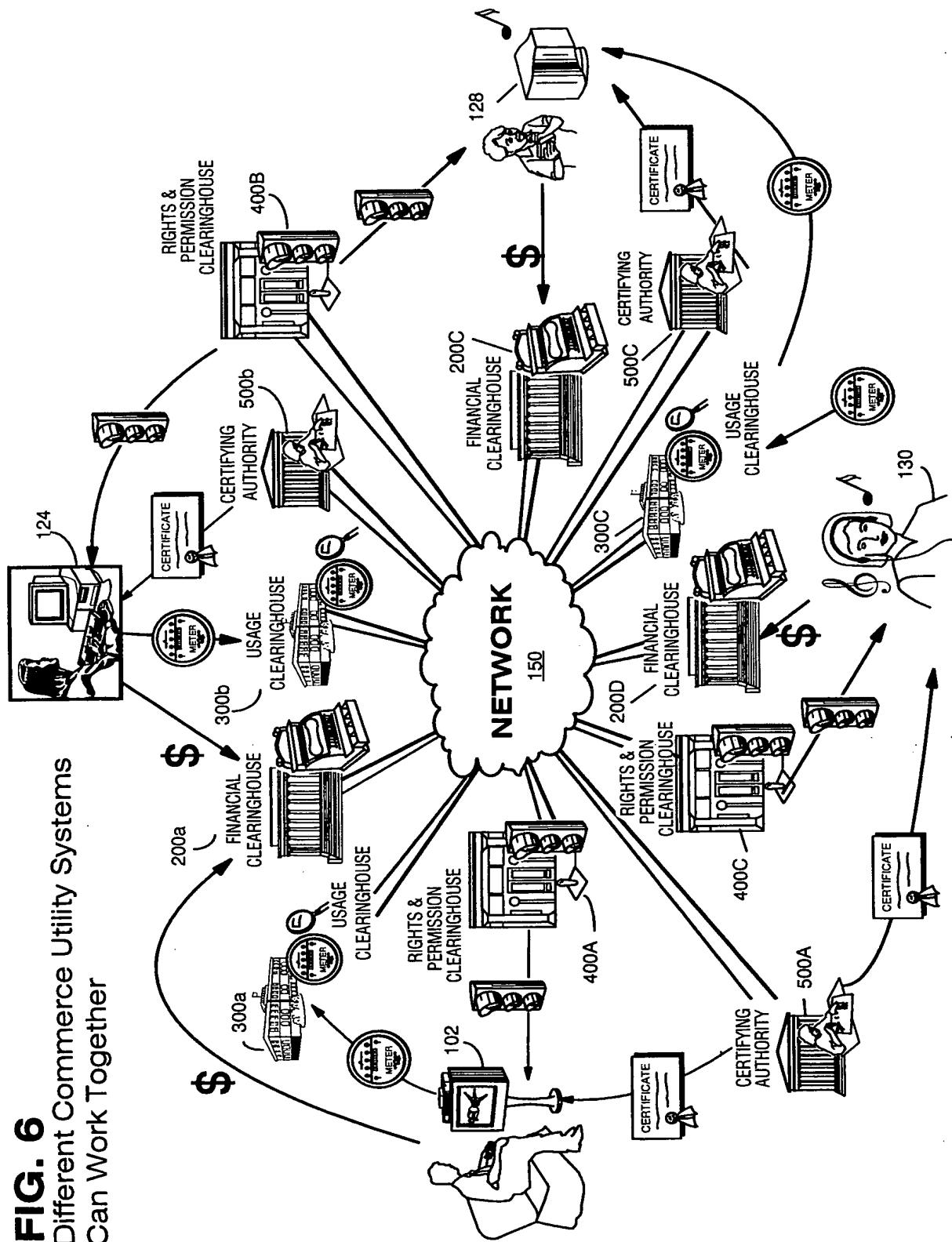


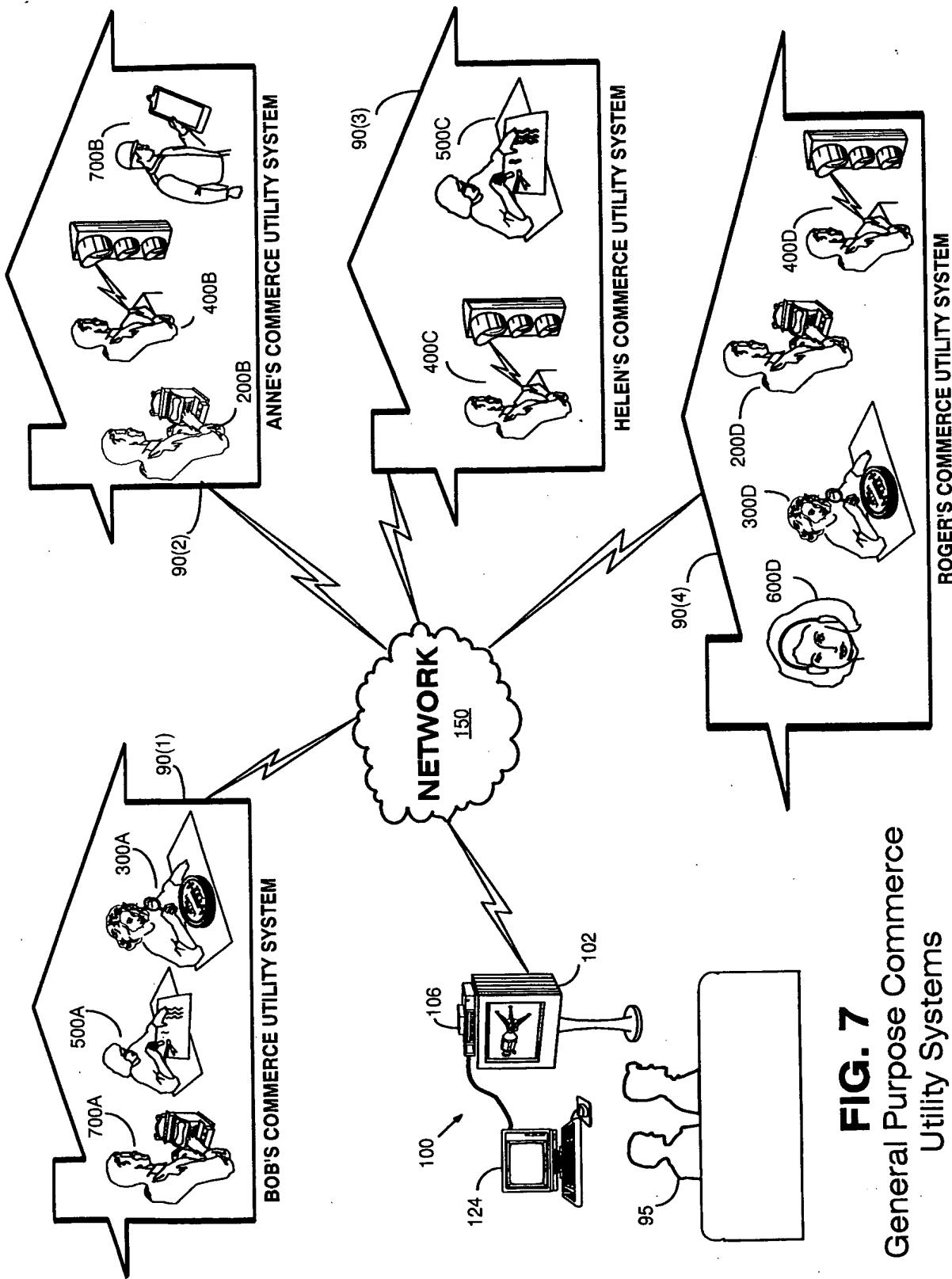
**FIG. 4A**  
Web of Commerce Utility Systems



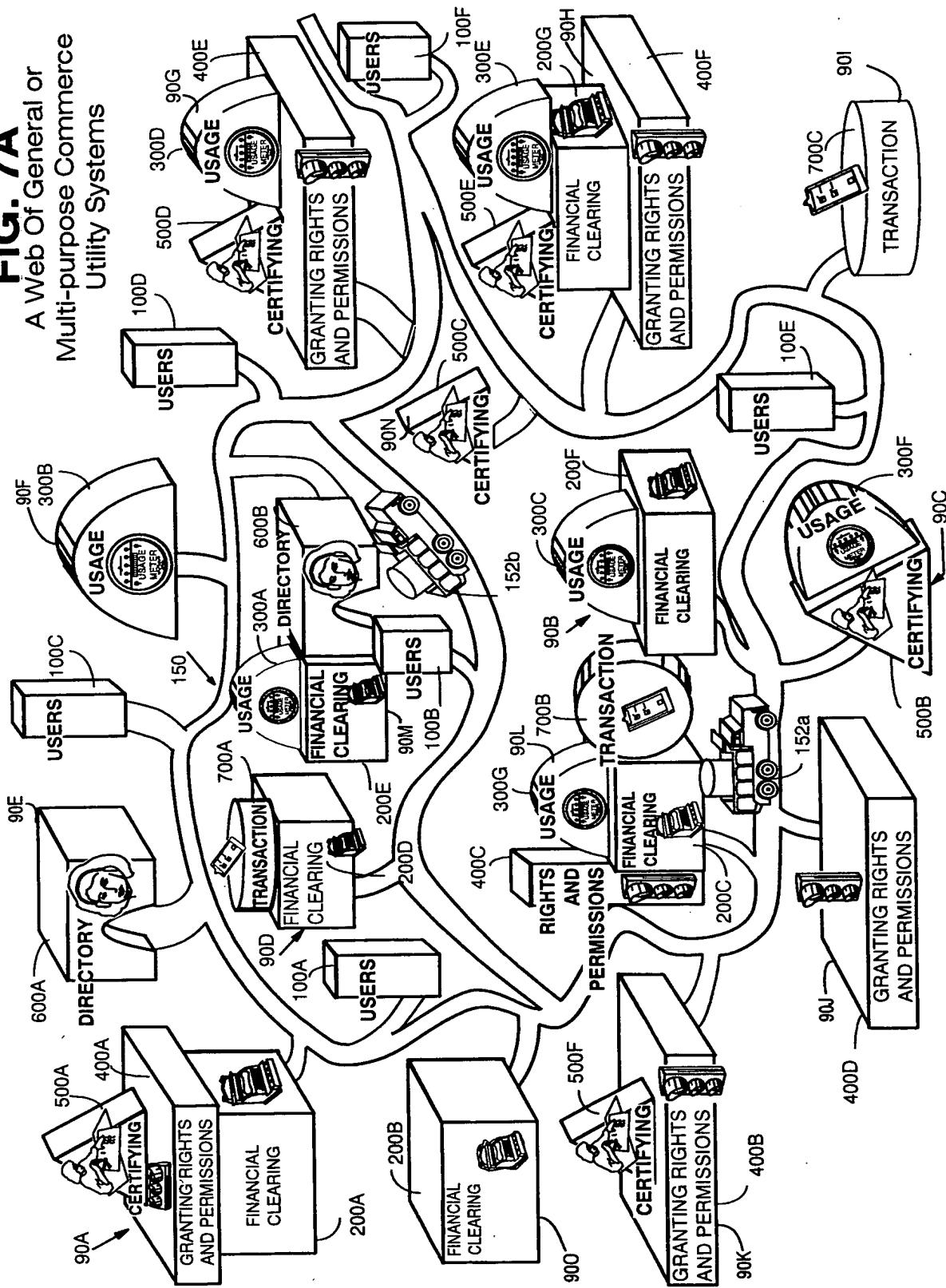
**FIG. 5**  
Rights Holders Can Choose Between Commerce Utility Systems

**FIG. 6**  
Different Commerce Utility Systems  
Can Work Together

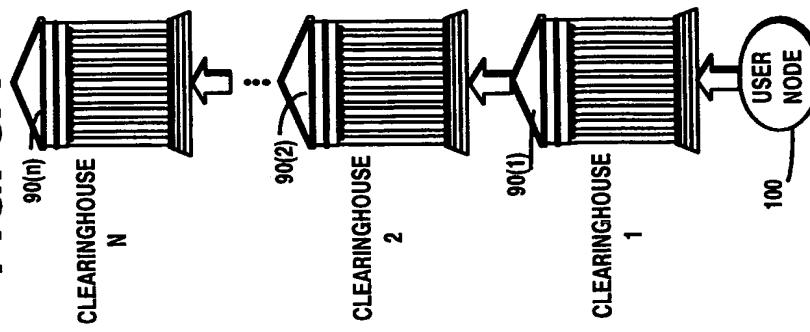




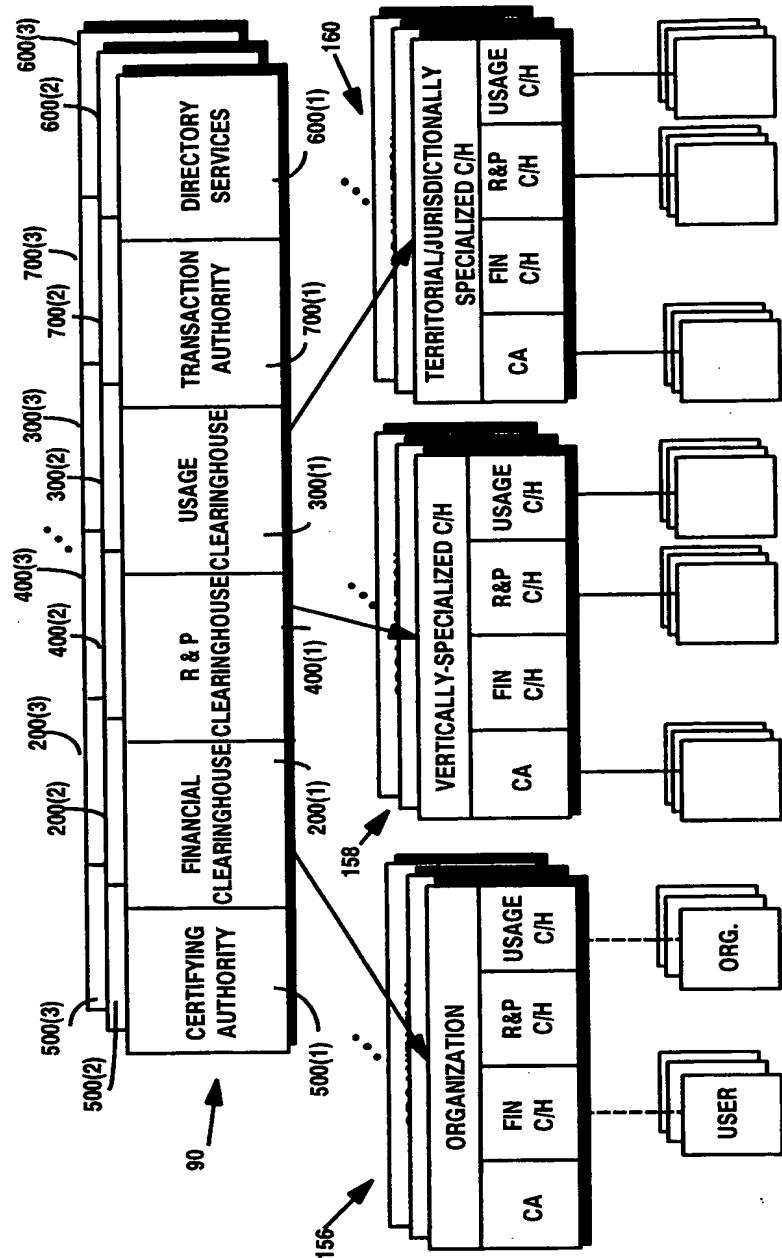
**FIG. 7A**  
A Web Of General or  
Multi-purpose Commerce  
Utility Systems



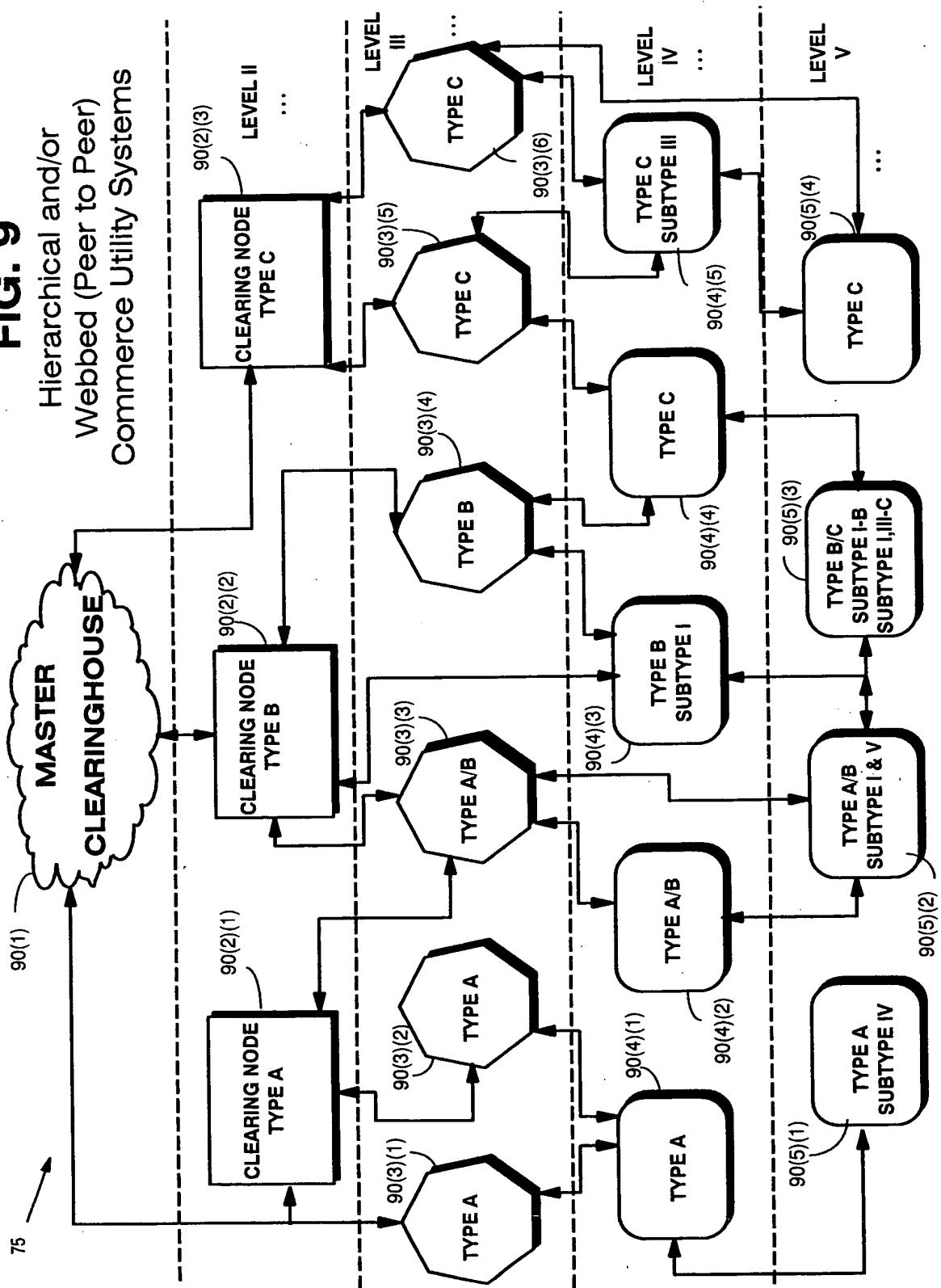
**FIG. 8A**



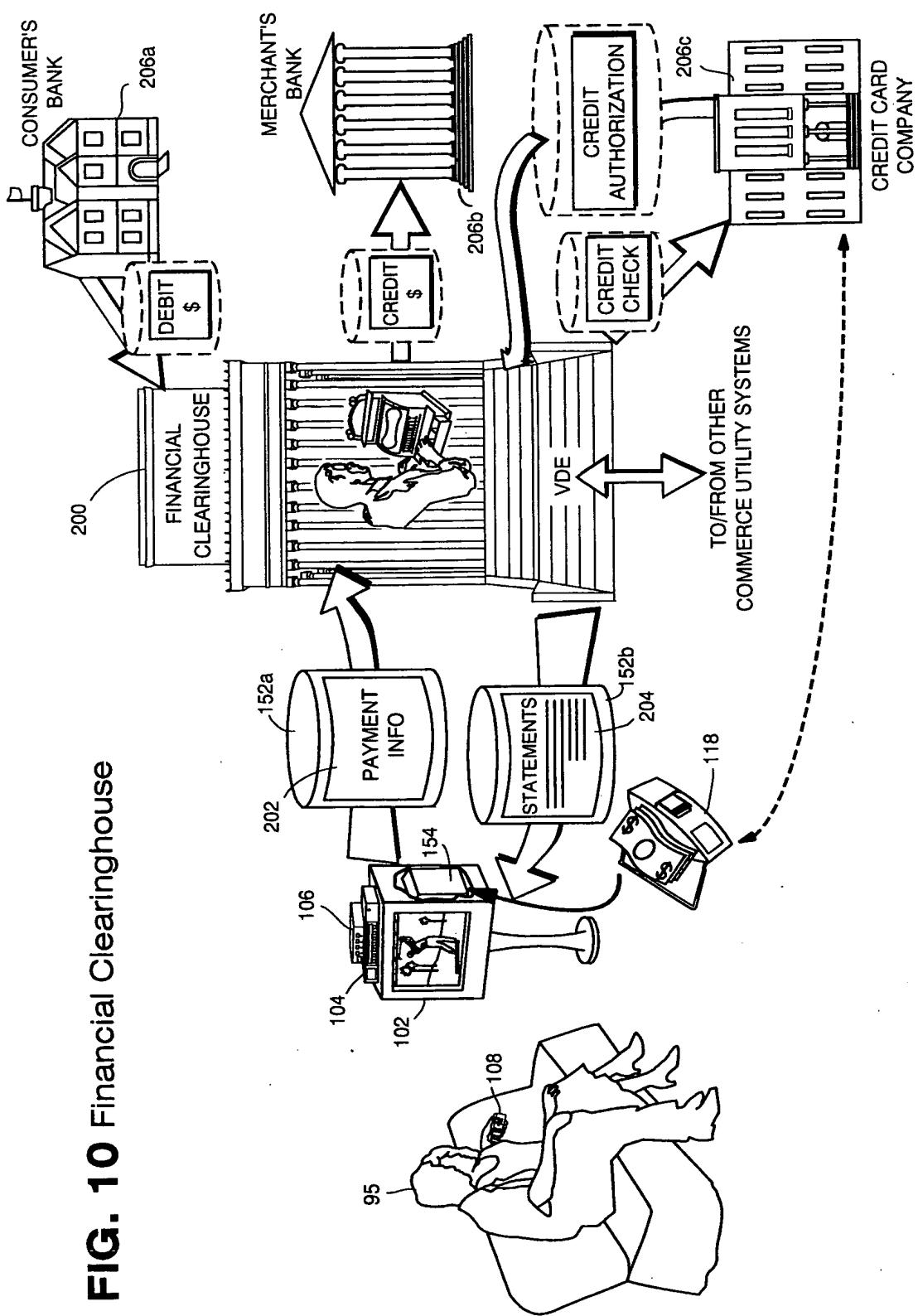
**FIG. 8B**  
Hierarchy Of Commerce  
Utility Systems



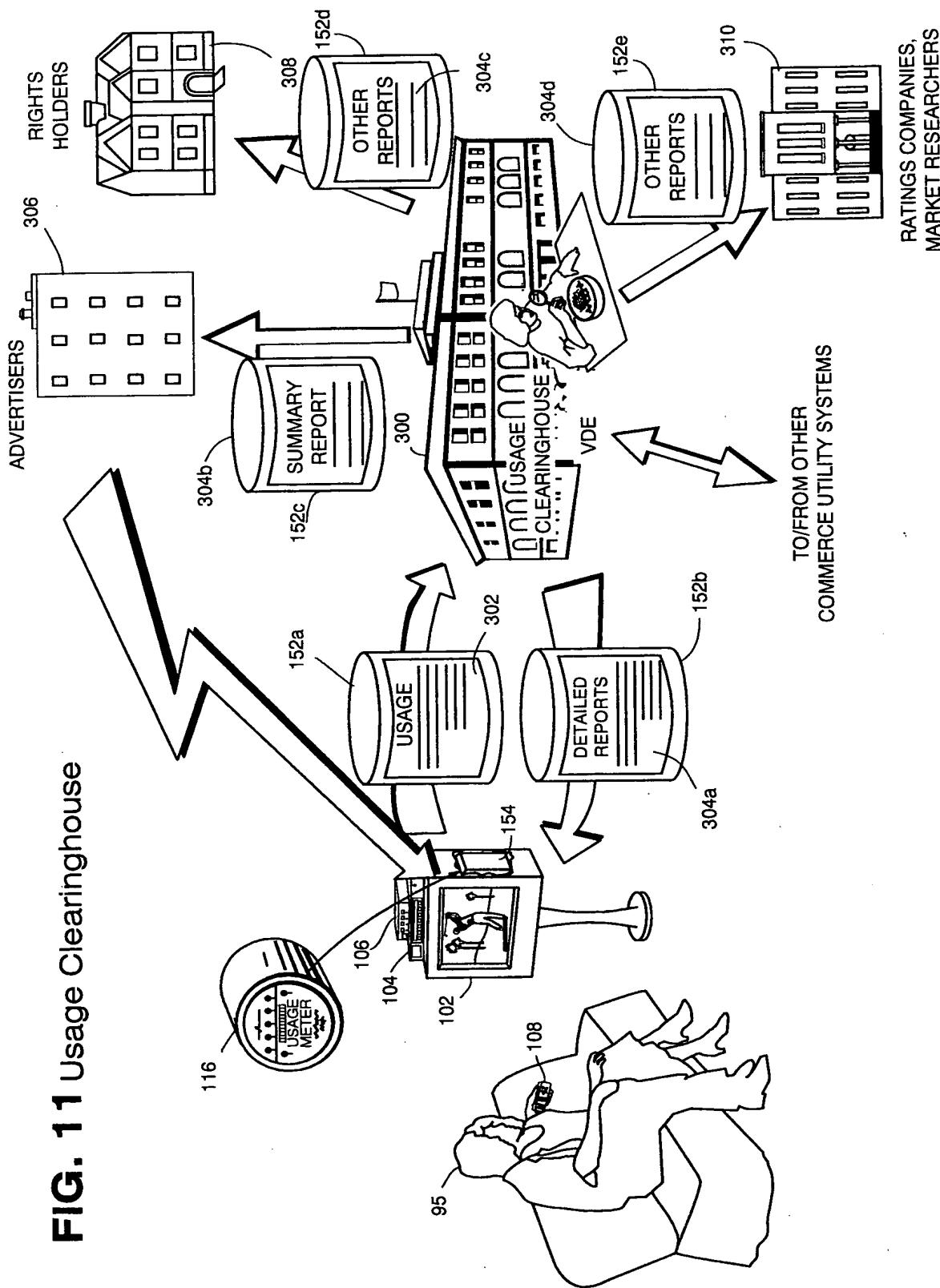
**FIG. 9**  
 Hierarchical and/or  
 Webbed (Peer to Peer)  
 Commerce Utility Systems



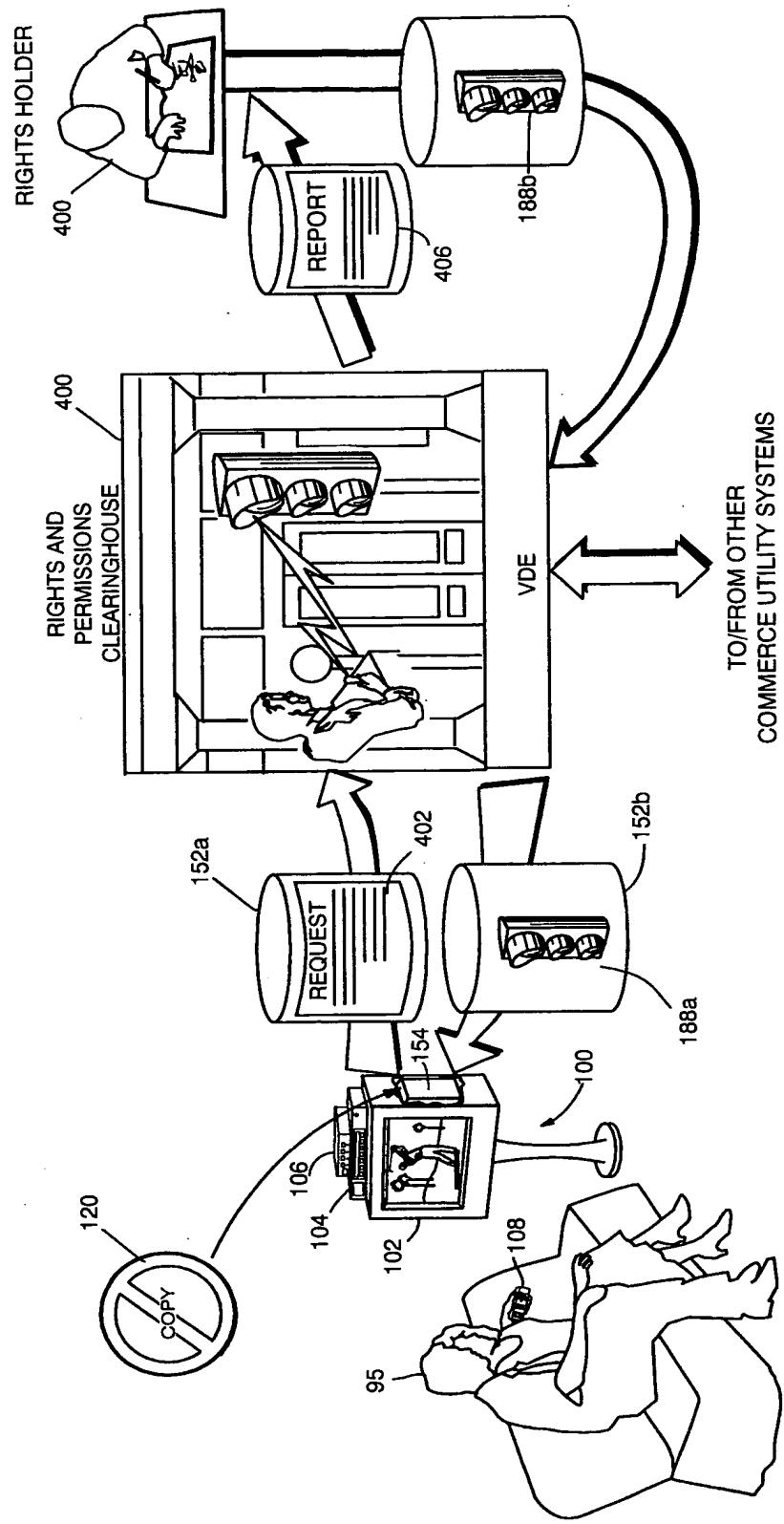
**FIG. 10** Financial Clearinghouse



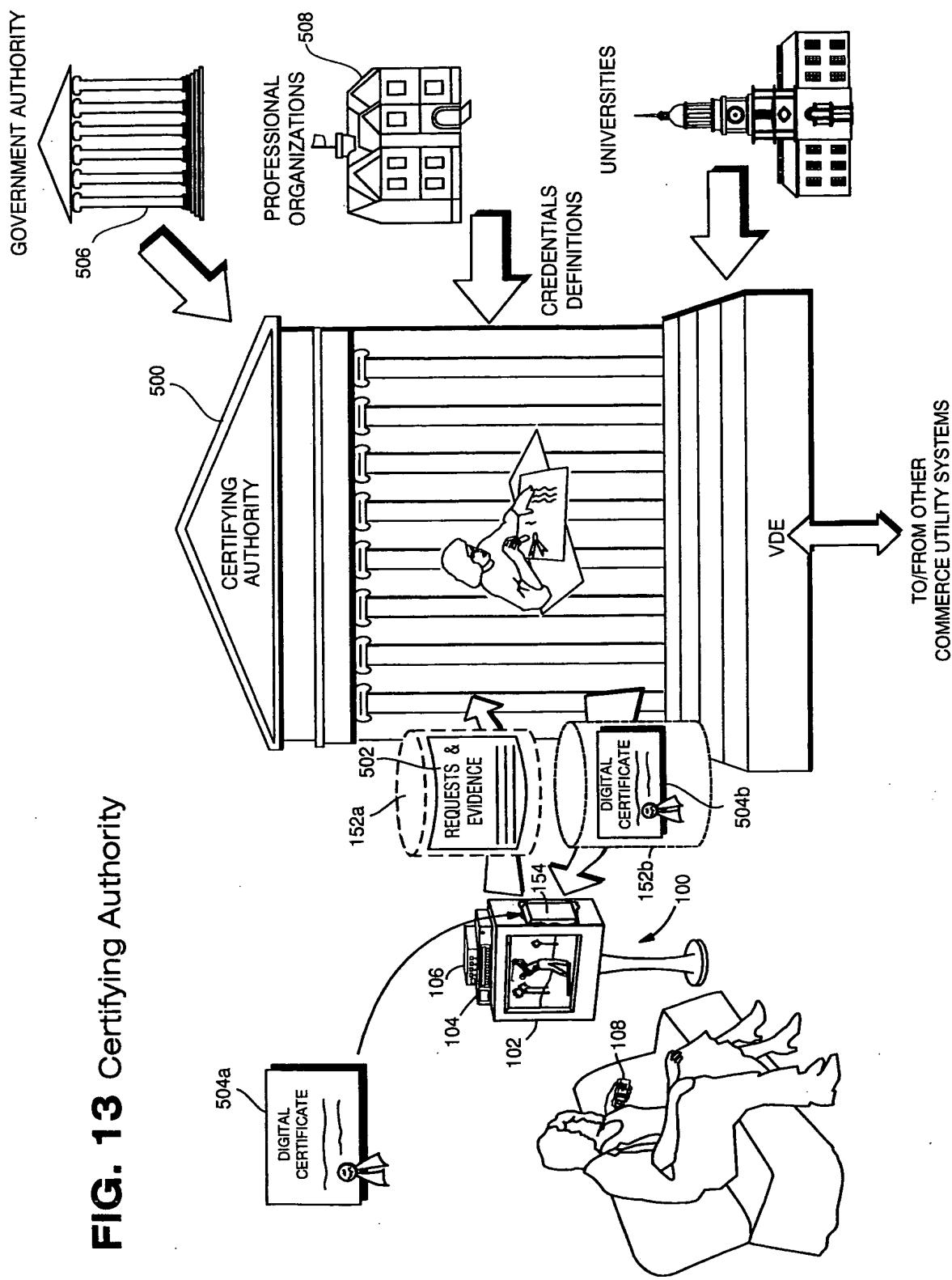
**FIG. 11** Usage Clearinghouse



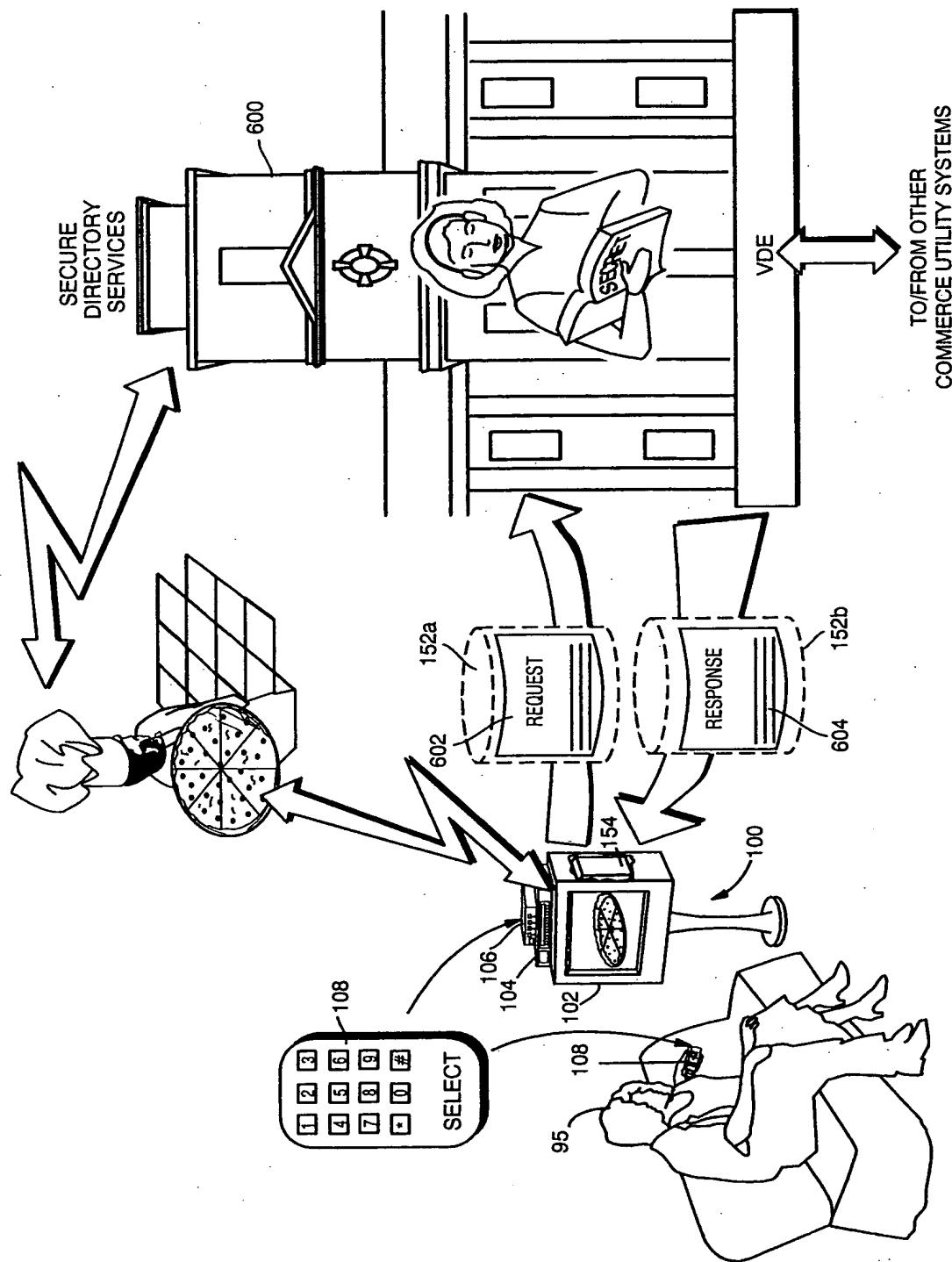
**FIG. 12** Rights and Permissions Clearinghouse



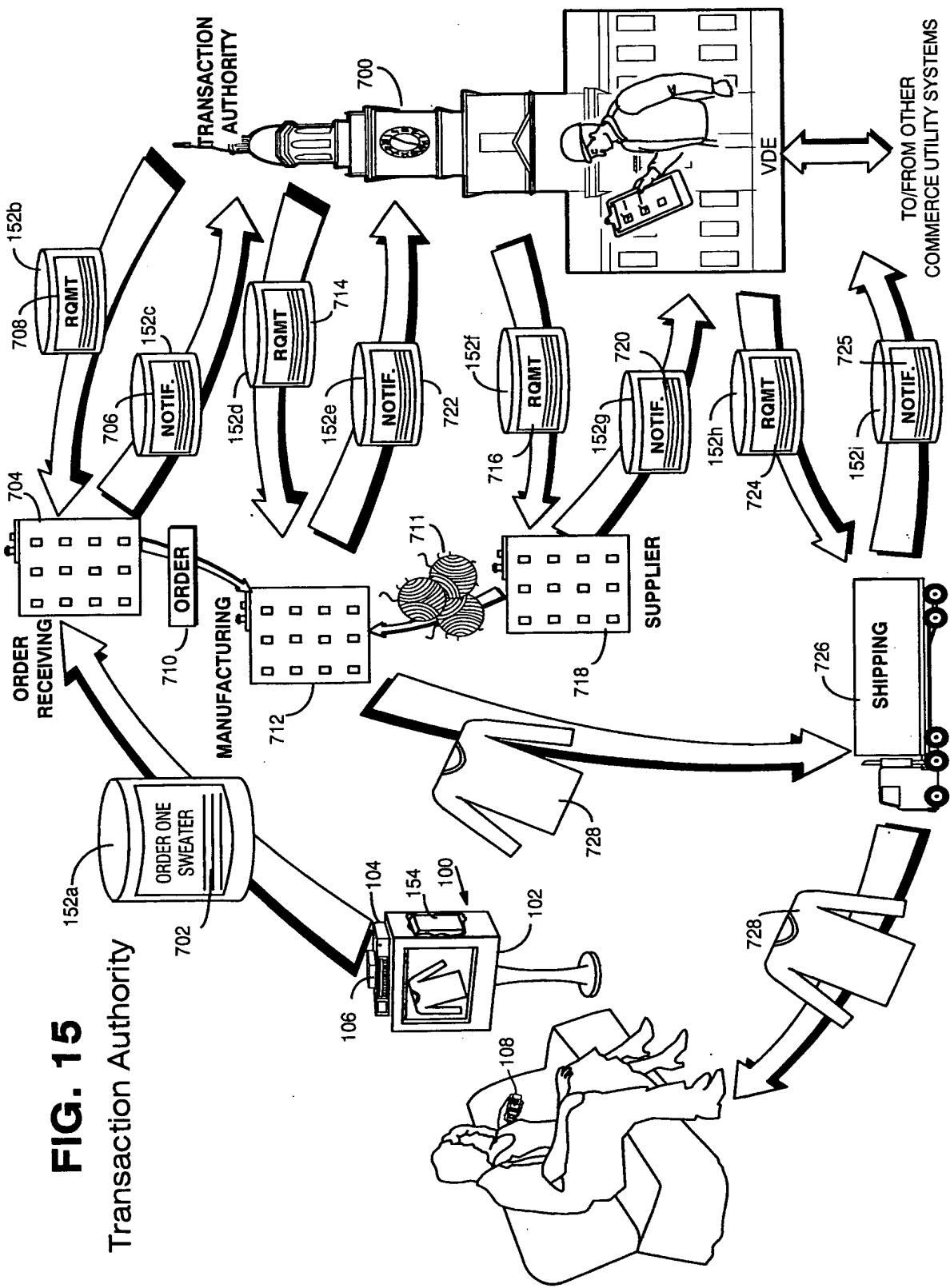
**FIG. 13** Certifying Authority

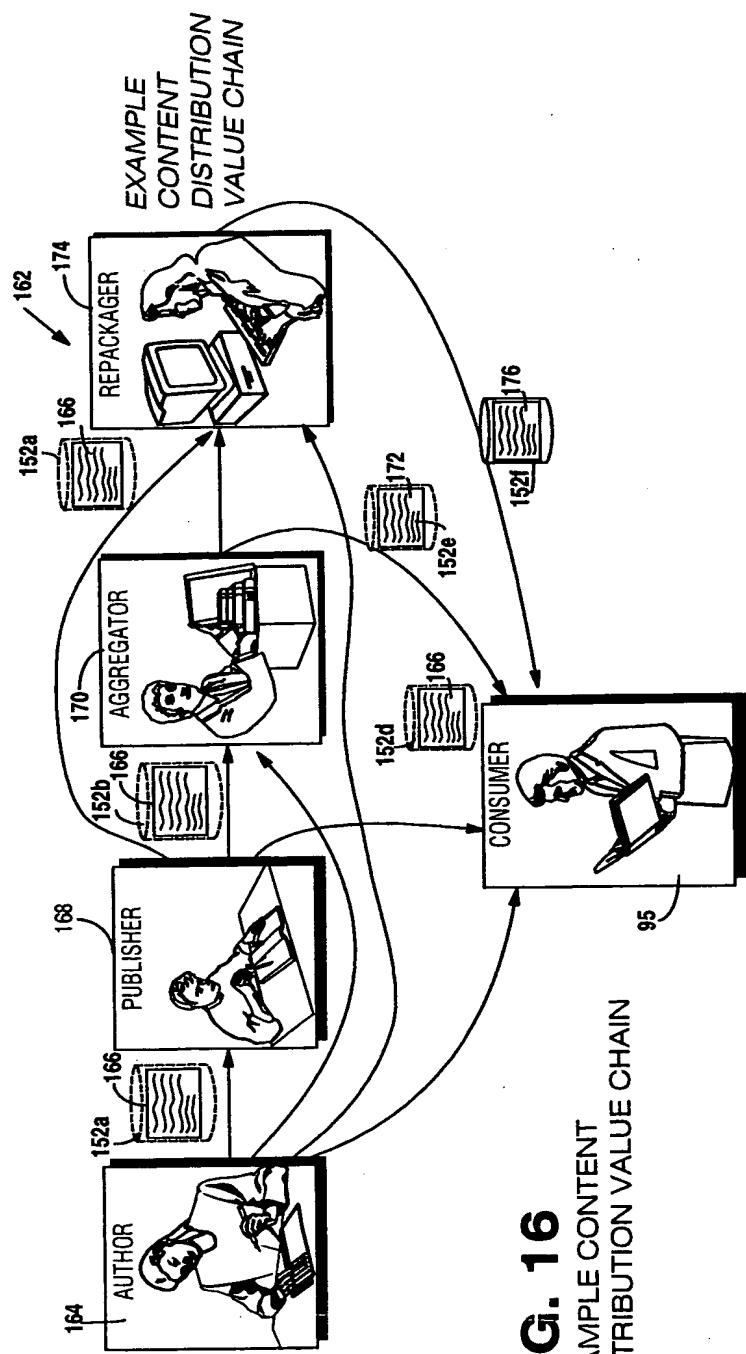


**FIG. 14** Secure Directory Services

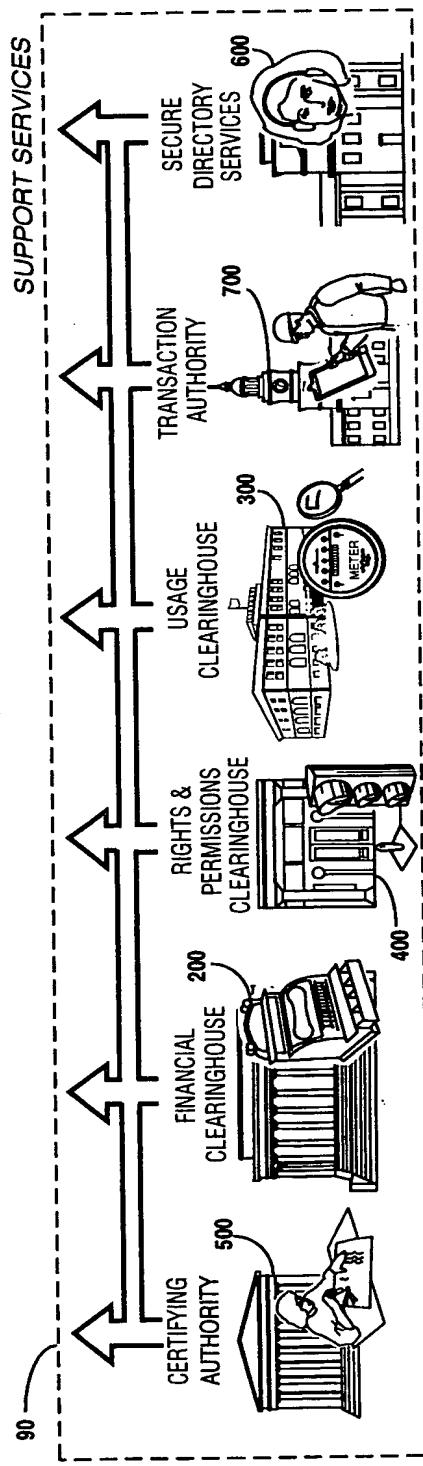


**FIG. 15**  
Transaction Authority

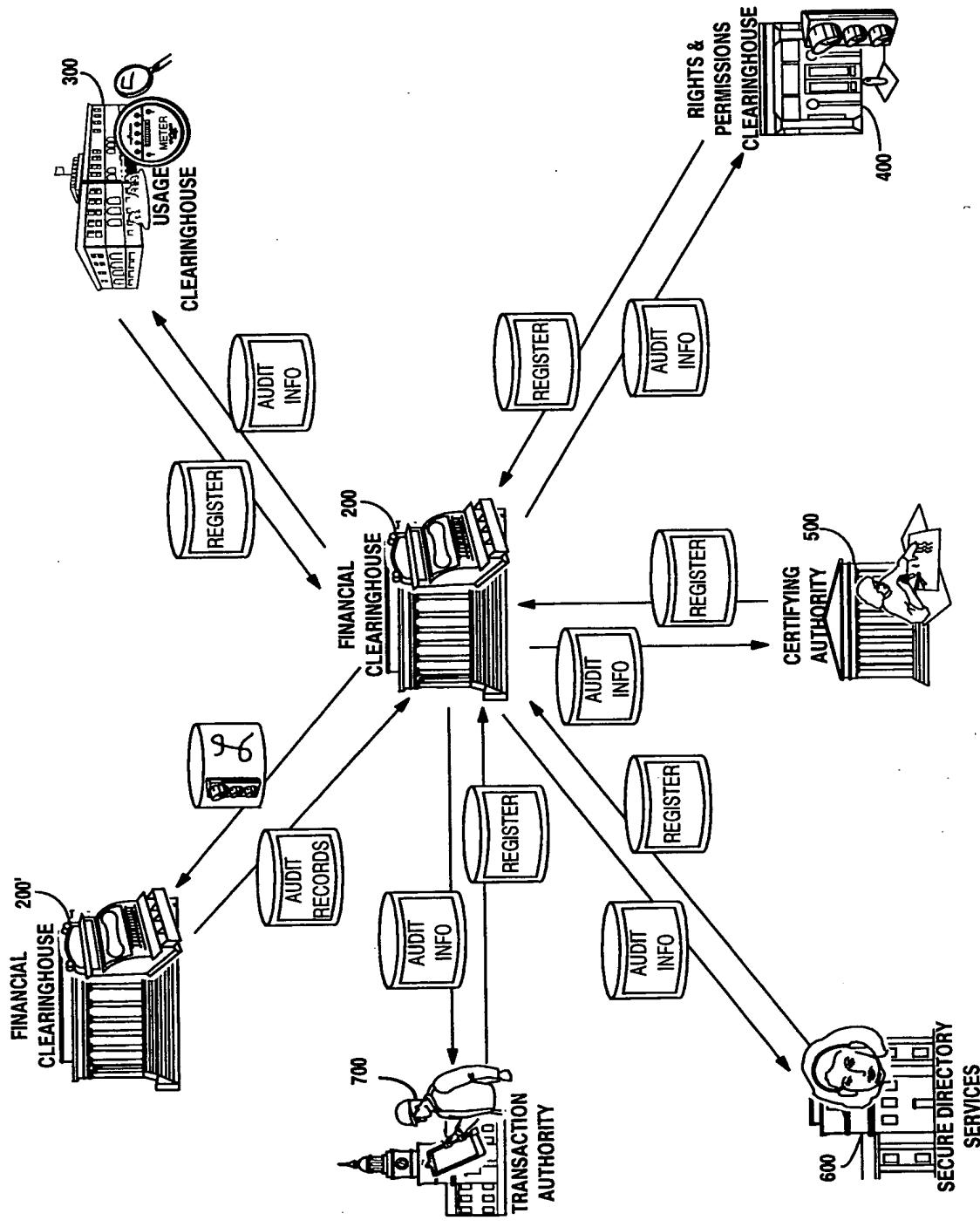




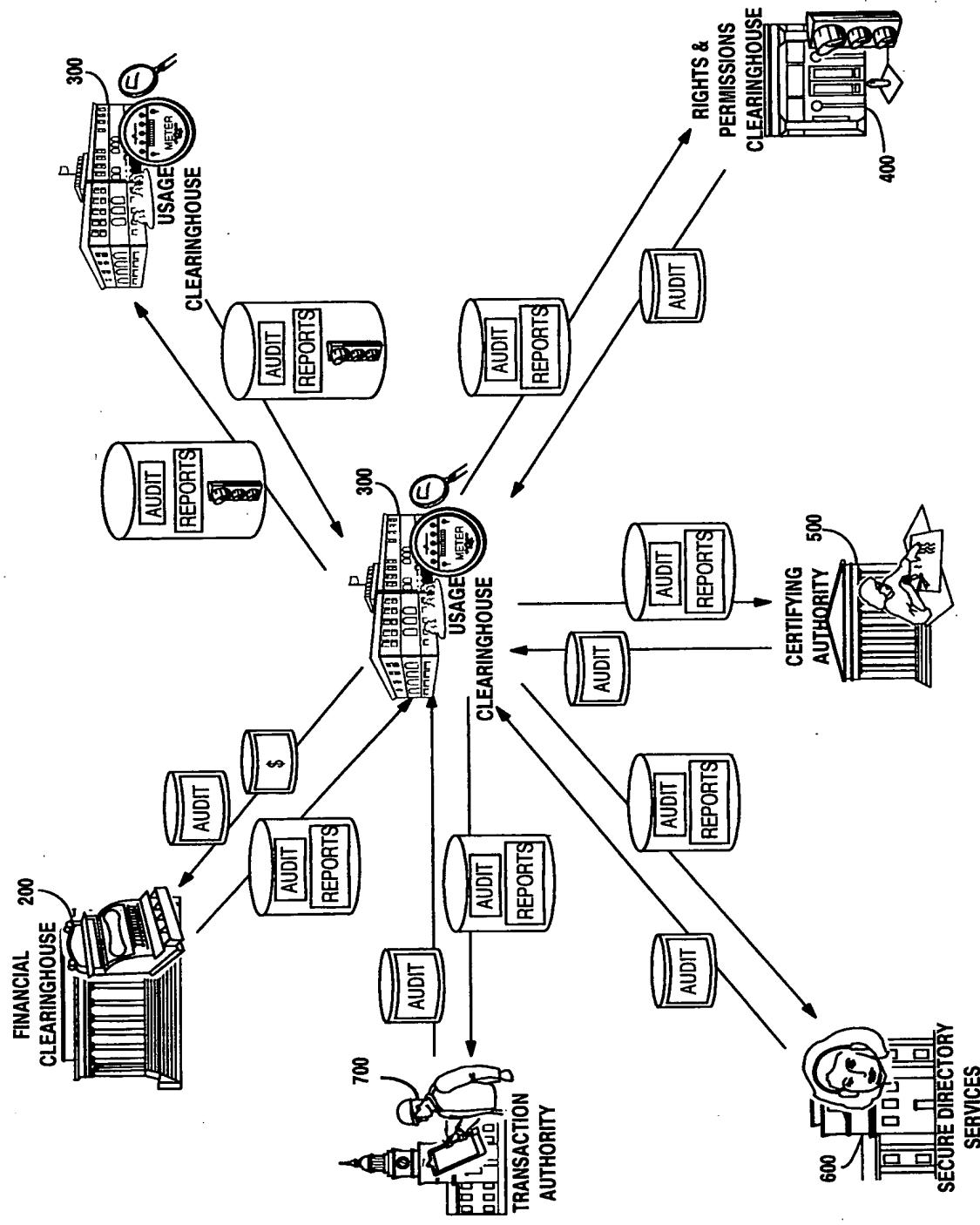
**FIG. 16**  
EXAMPLE CONTENT  
DISTRIBUTION VALUE CHAIN



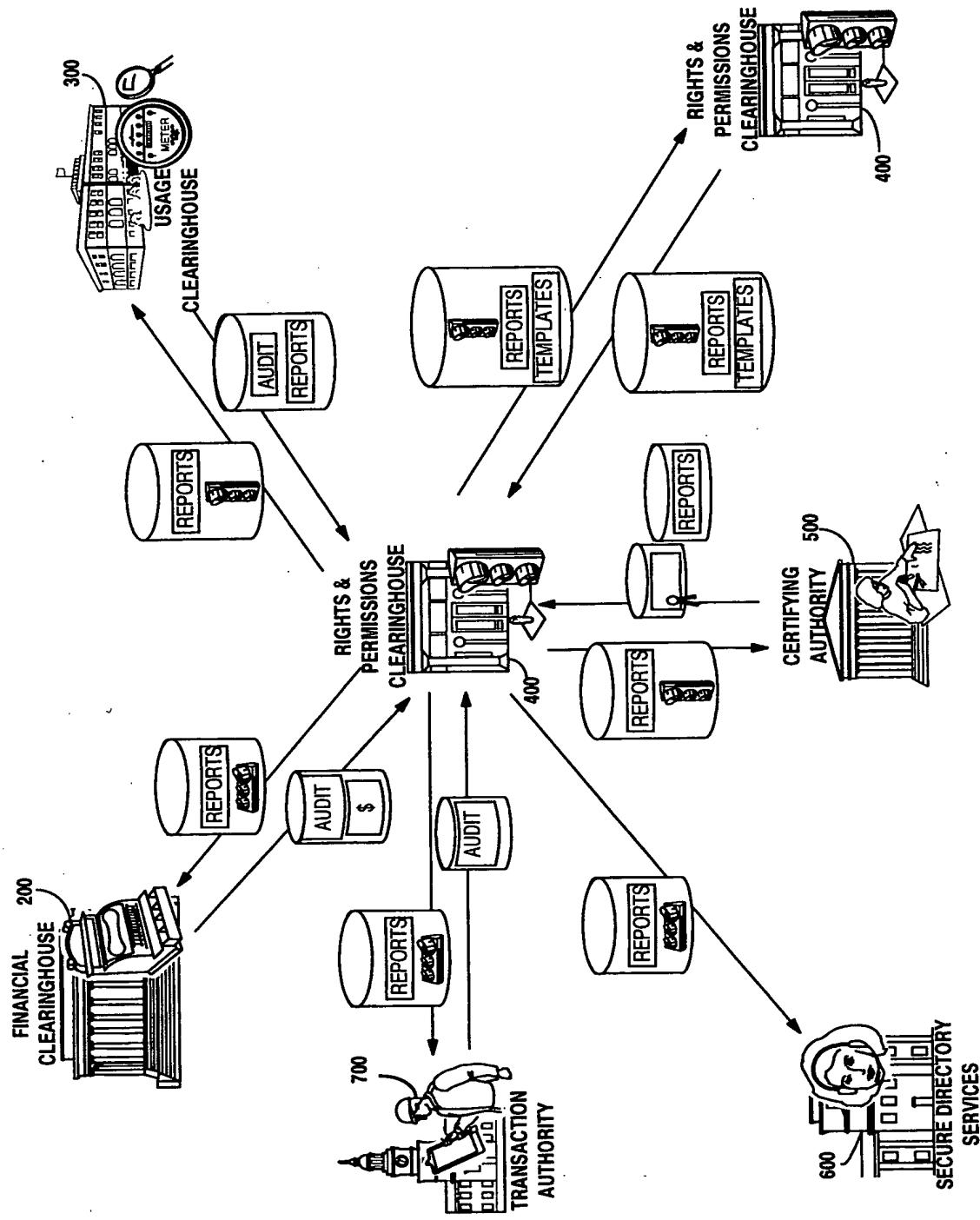
**FIG. 16A**



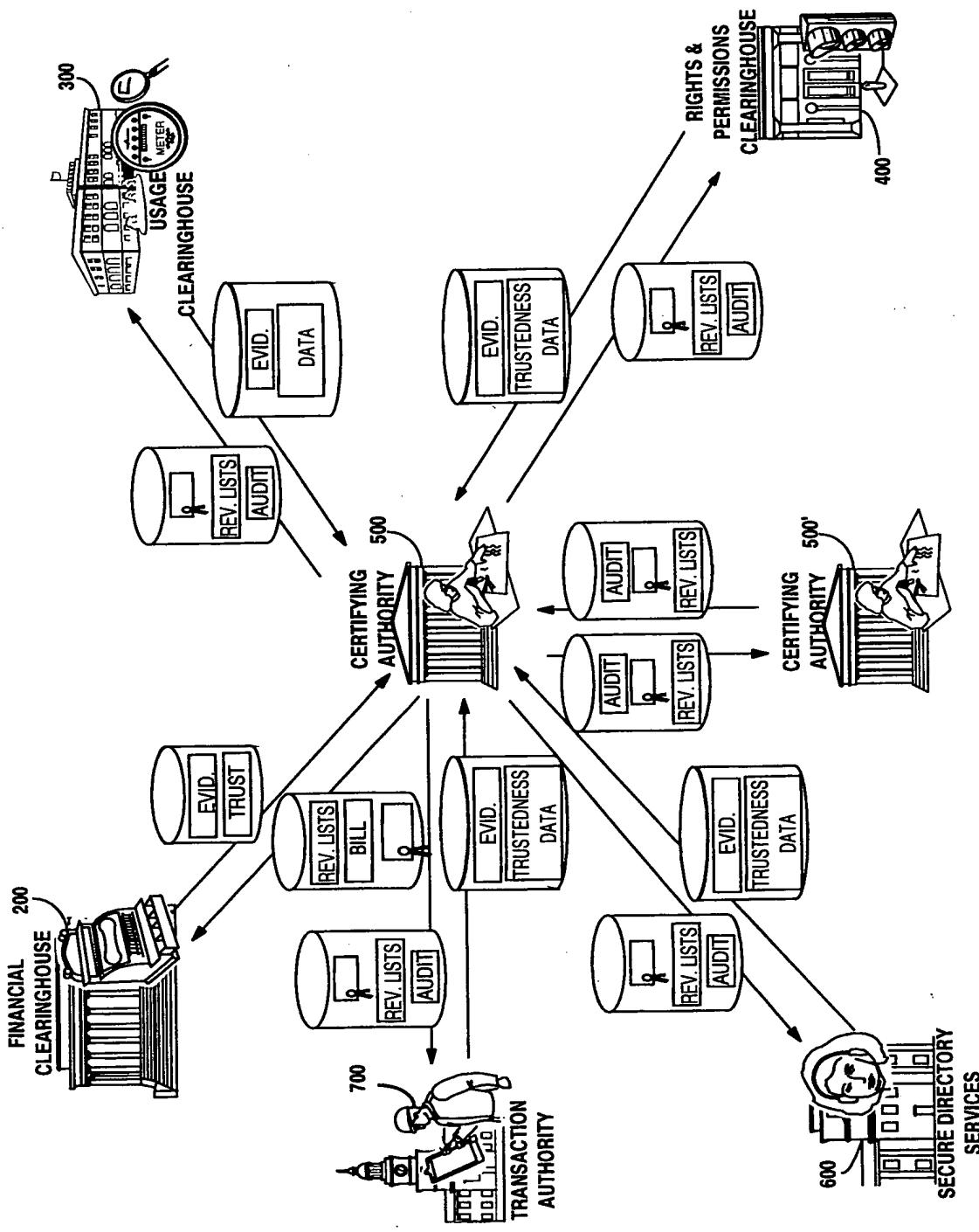
**FIG. 16B**



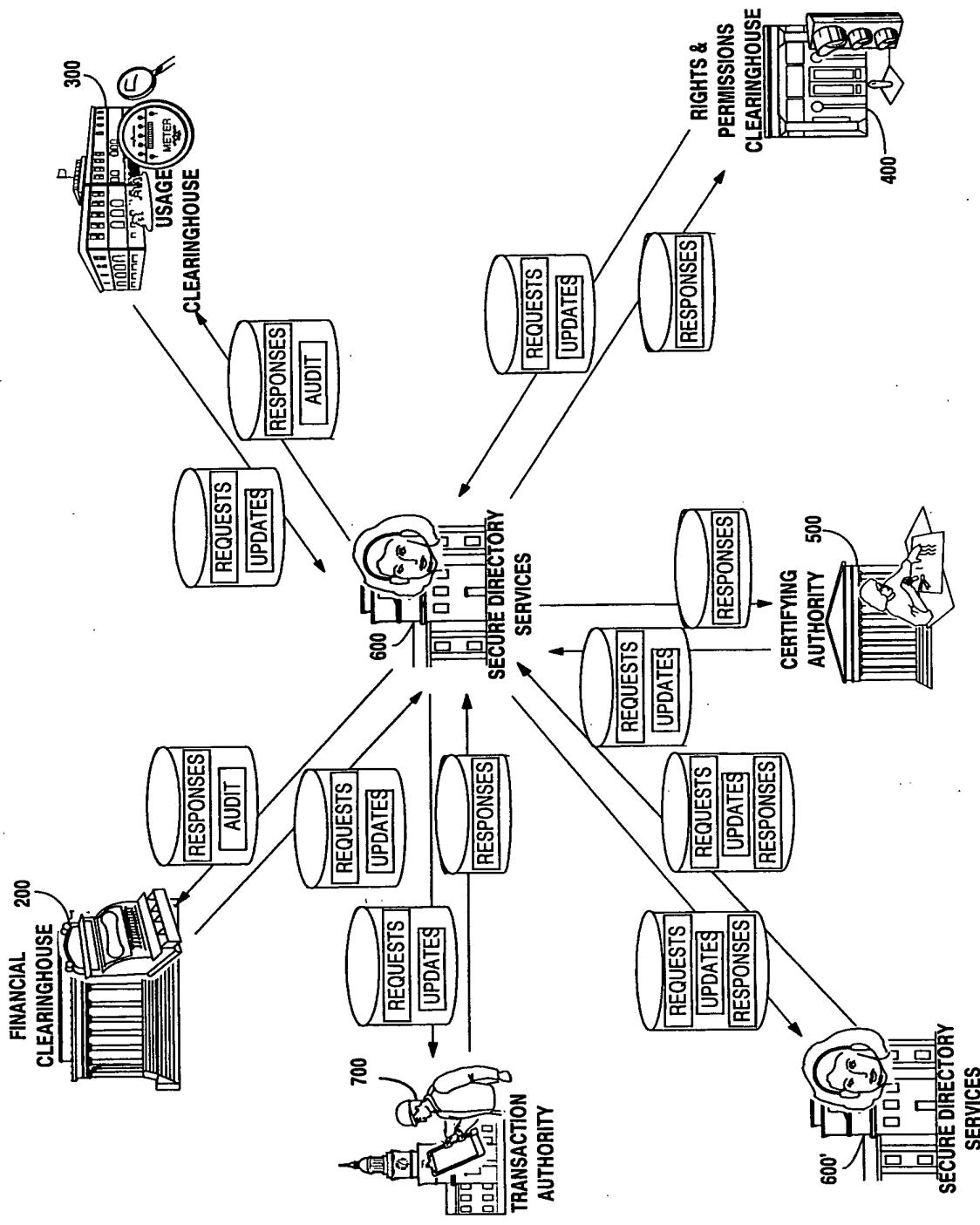
**FIG. 16C**



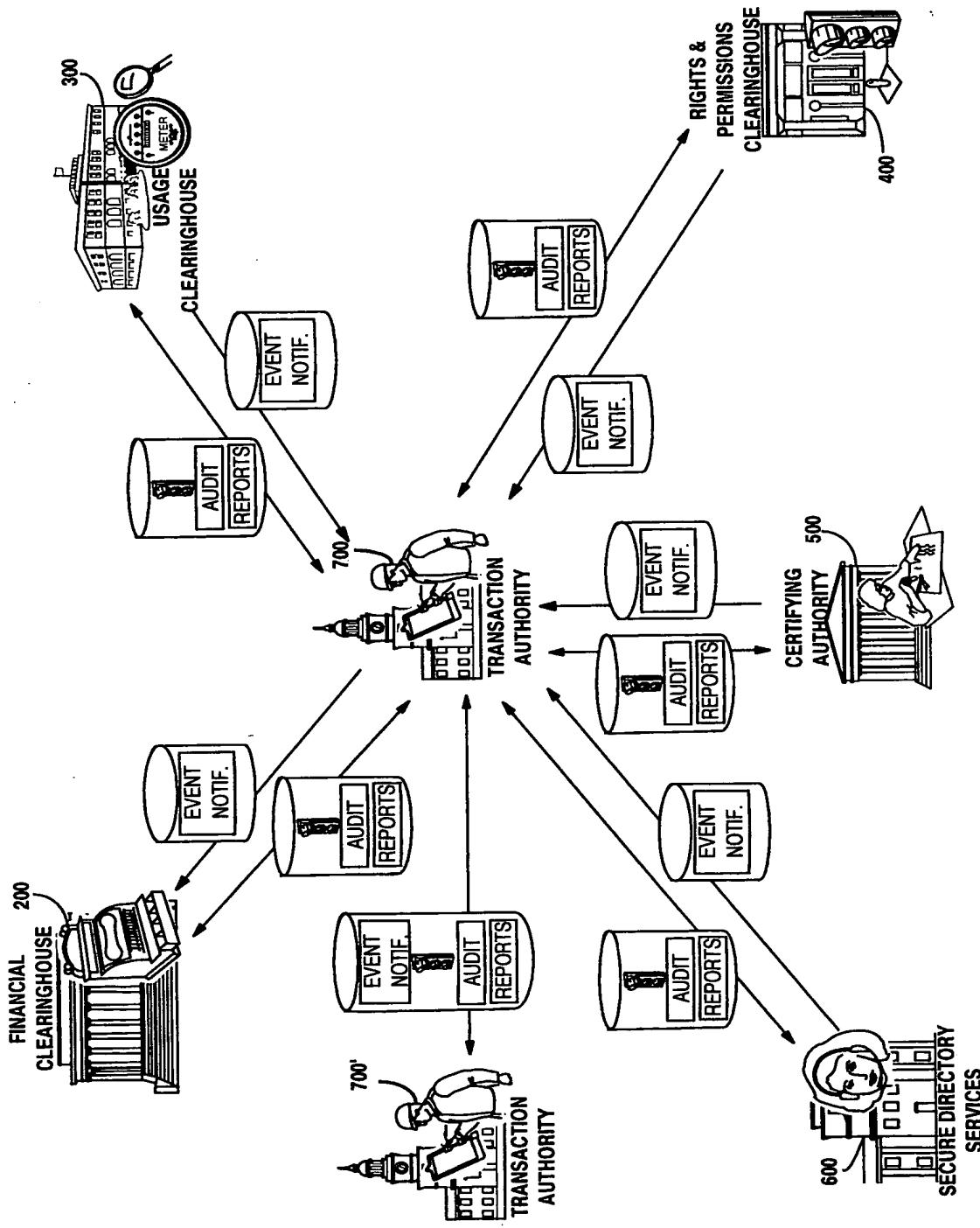
**FIG. 16D**

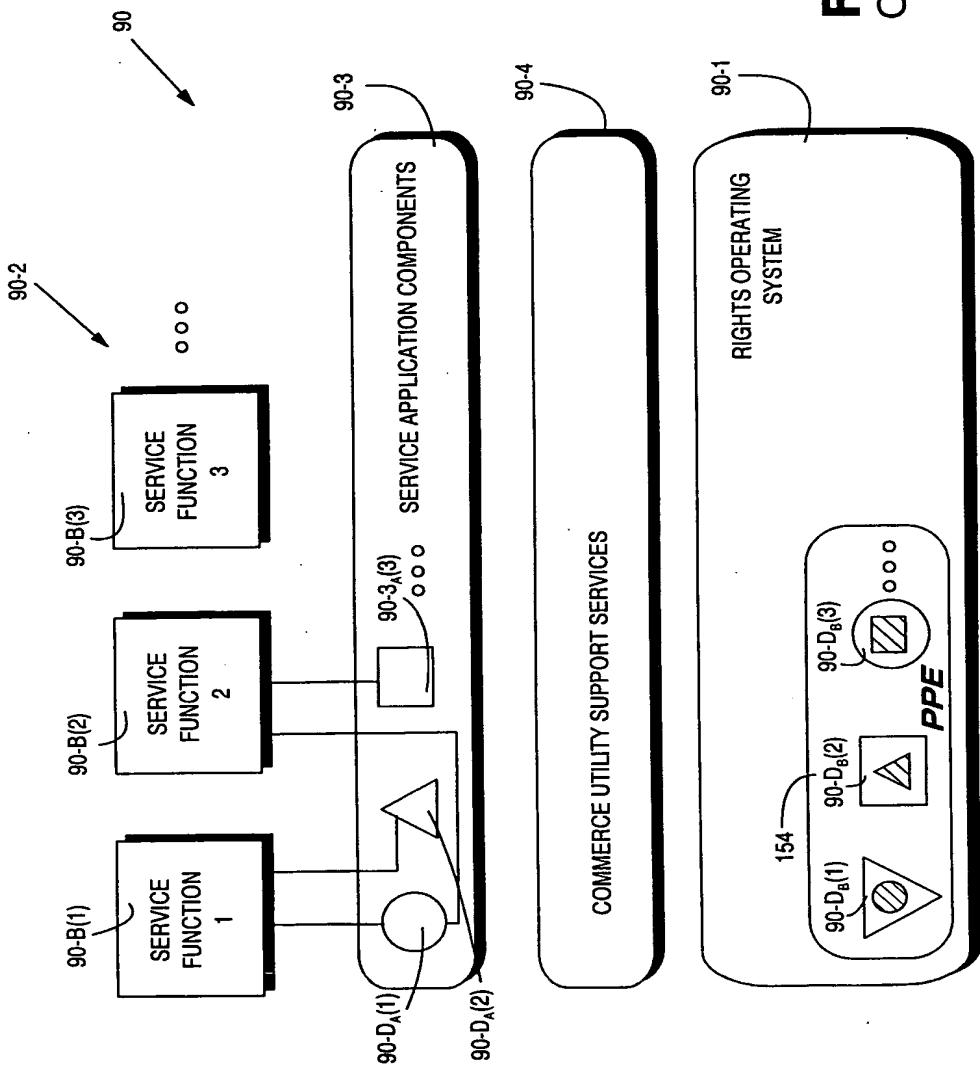


**FIG. 16E**

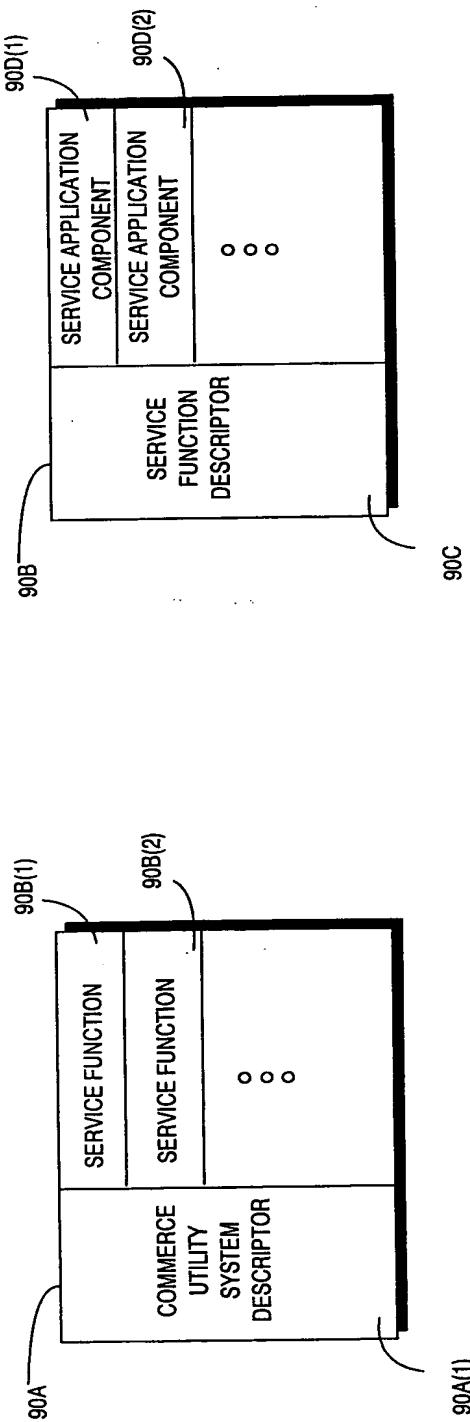


**FIG. 16F**





**FIG. 17A**  
Commerce Utility System 90



**FIG. 17B**

**FIG. 17C**

FIG. 17D-1

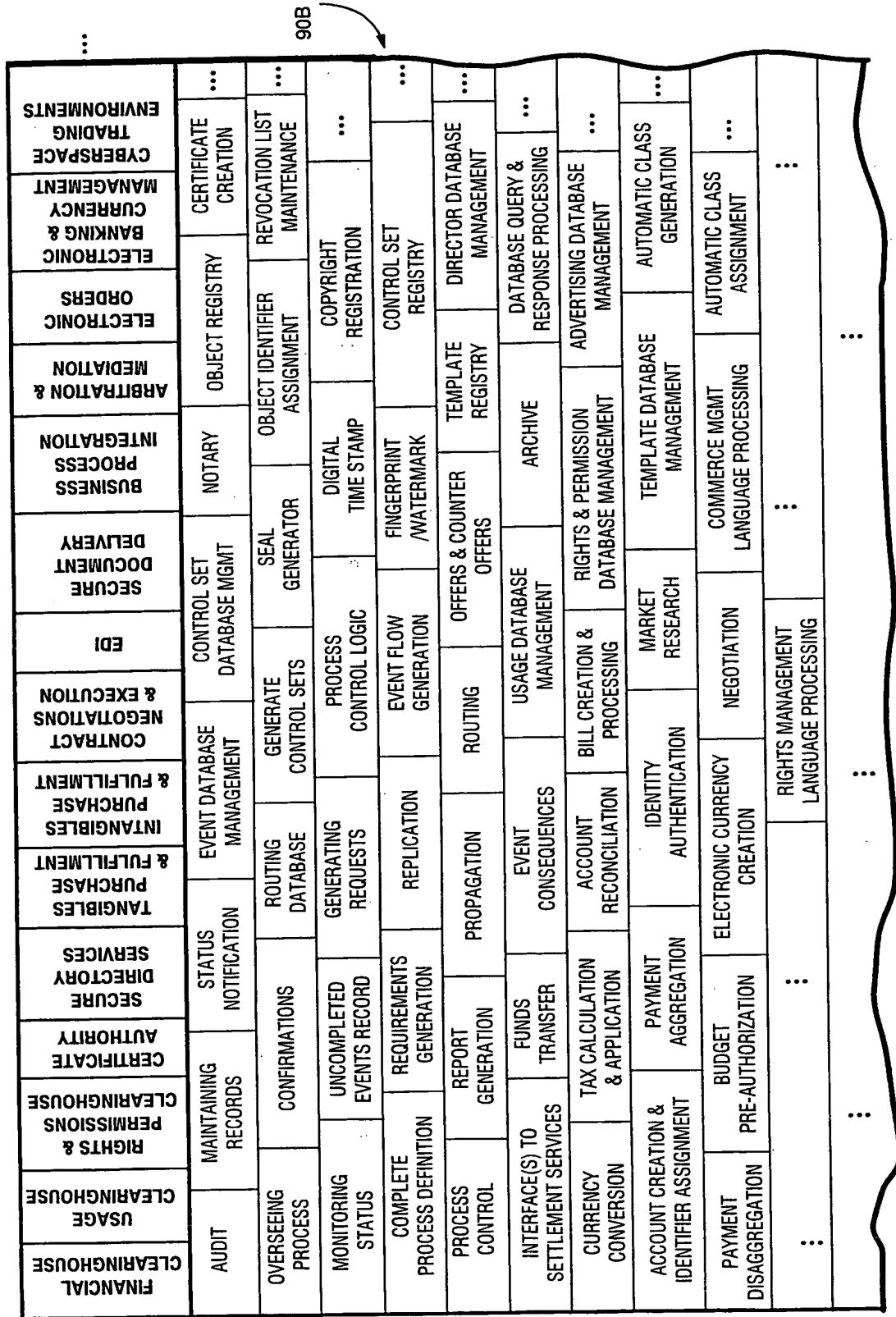
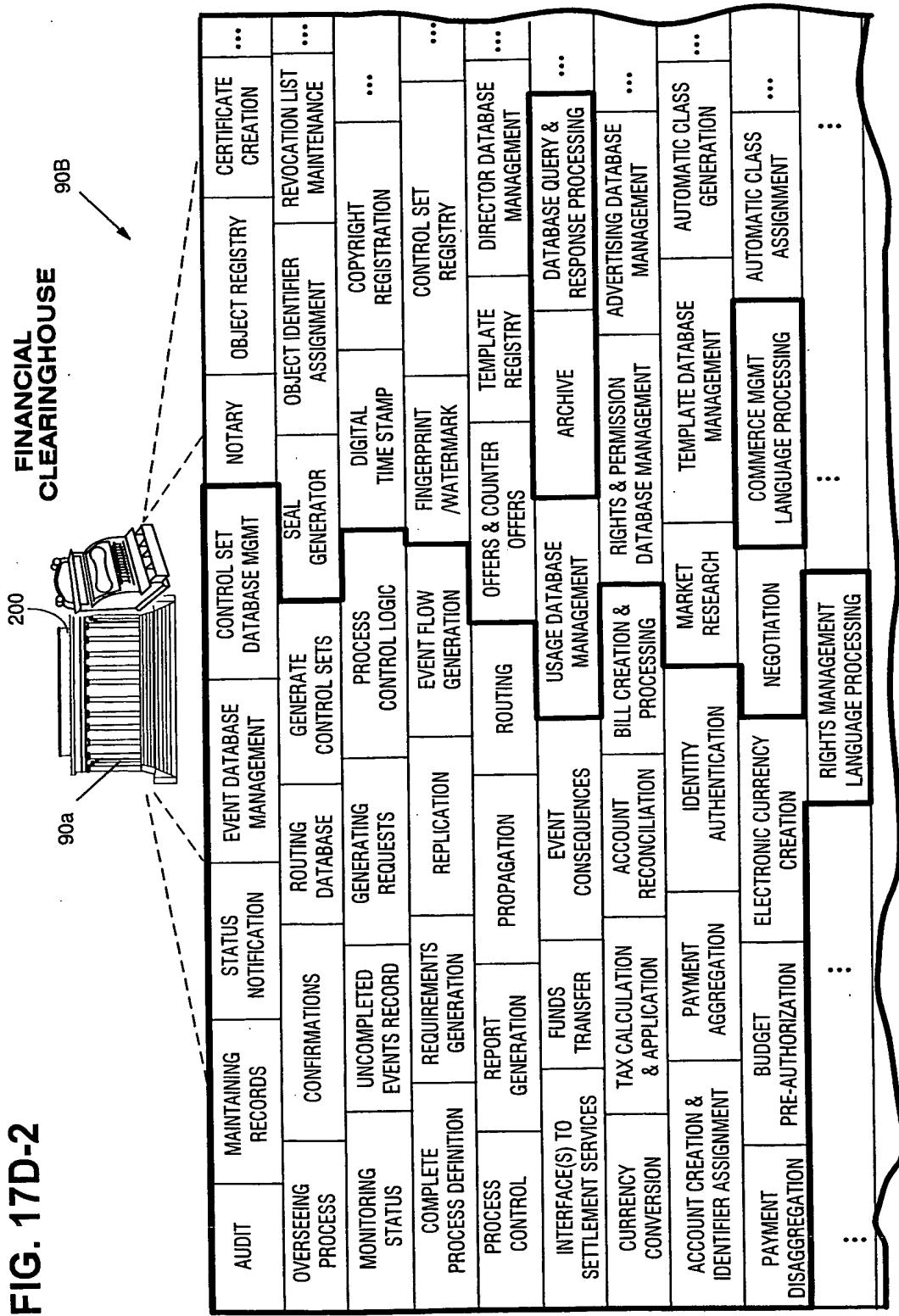
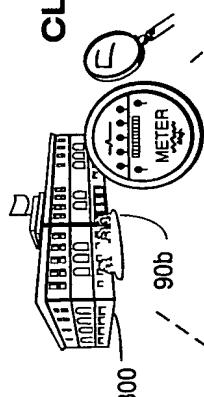


FIG. 17D-2

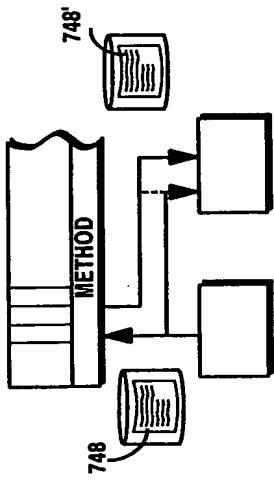


**FIG. 17D-3**

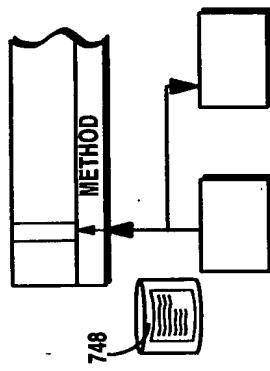
**USAGE  
CLEARINGHOUSE**



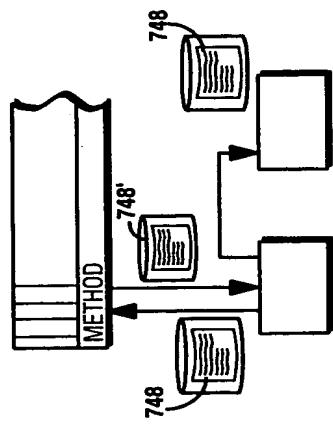
AUDIT	MAINTAINING RECORDS	STATUS NOTIFICATION	EVENT DATABASE MANAGEMENT	CONTROL SET DATABASE MGMT	NOTARY	OBJECT REGISTRY	CERTIFICATE CREATION	...
OVERSEEING PROCESS	CONFIRMATIONS	ROUTING DATABASE	GENERATE CONTROL SETS	SEAL GENERATOR	OBJECT IDENTIFIER ASSIGNMENT	REVOCATION LIST MAINTENANCE	...	
MONITORING STATUS	UNCOMPLETED EVENTS RECORD	GENERATING REQUESTS	PROCESS CONTROL LOGIC	DIGITAL TIME STAMP	COPYRIGHT REGISTRATION	...		
COMPLETE PROCESS DEFINITION	REQUIREMENTS GENERATION	REPLICATION	EVENT FLOW GENERATION	FINGERPRINT	CONTROL SET REGISTRY	...		
PROCESS CONTROL	REPORT GENERATION	PROPAGATION	ROUTING	OFFERS & COUNTER OFFERS	TEMPLATE REGISTRY	DIRECTOR DATABASE MANAGEMENT	...	
INTERFACE(S) TO SETTLEMENT SERVICES	FUNDS TRANSFER	EVENT CONSEQUENCES	USAGE DATABASE MANAGEMENT	ARCHIVE	DATABASE QUERY & RESPONSE PROCESSING	...		
CURRENCY CONVERSION	TAX CALCULATION & APPLICATION	ACCOUNT RECONCILIATION	BILL CREATION & PROCESSING	RIGHTS & PERMISSION MANAGEMENT	ADVERTISING DATABASE MANAGEMENT	...		
ACCOUNT CREATION & IDENTIFIER ASSIGNMENT	PAYOUT AGGREGATION	IDENTITY AUTHENTICATION	MARKET RESEARCH	TEMPLATE DATABASE MANAGEMENT	AUTOMATIC CLASS GENERATION	...		
PAYOUT DISAGGREGATION	BUDGET PRE-AUTHORIZATION	ELECTRONIC CURRENCY CREATION	NEGOTIATION	COMMERCE MGMT LANGUAGE PROCESSING	AUTOMATIC CLASS ASSIGNMENT	...		
...	...	RIGHTS MANAGEMENT LANGUAGE PROCESSING	...	...	...	...		



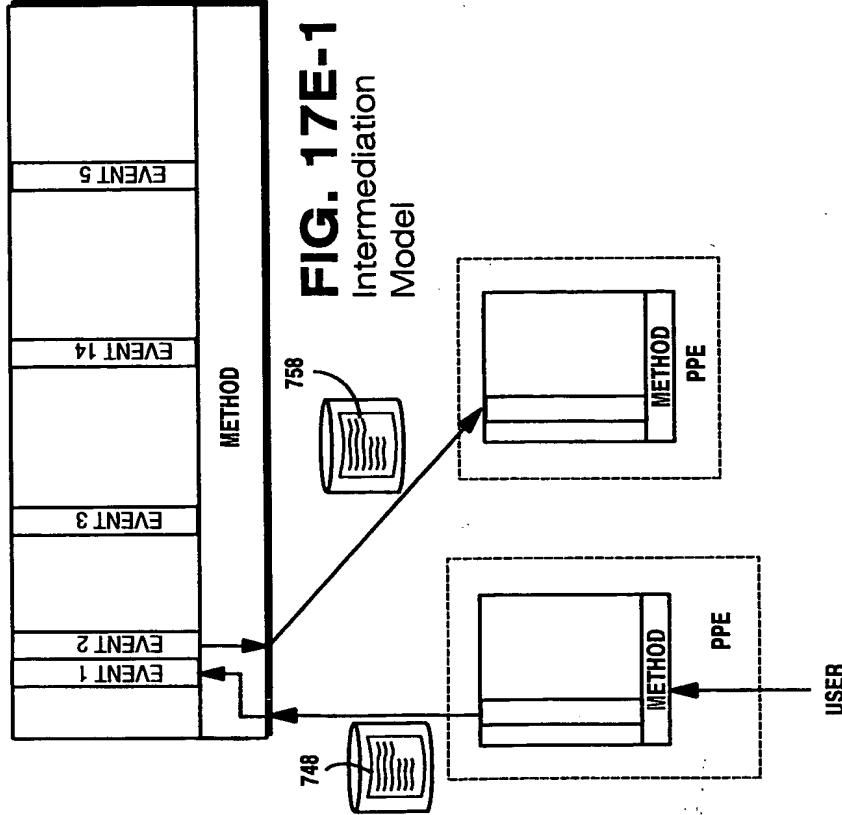
**FIG. 17E-2**  
Authentication to Proceed



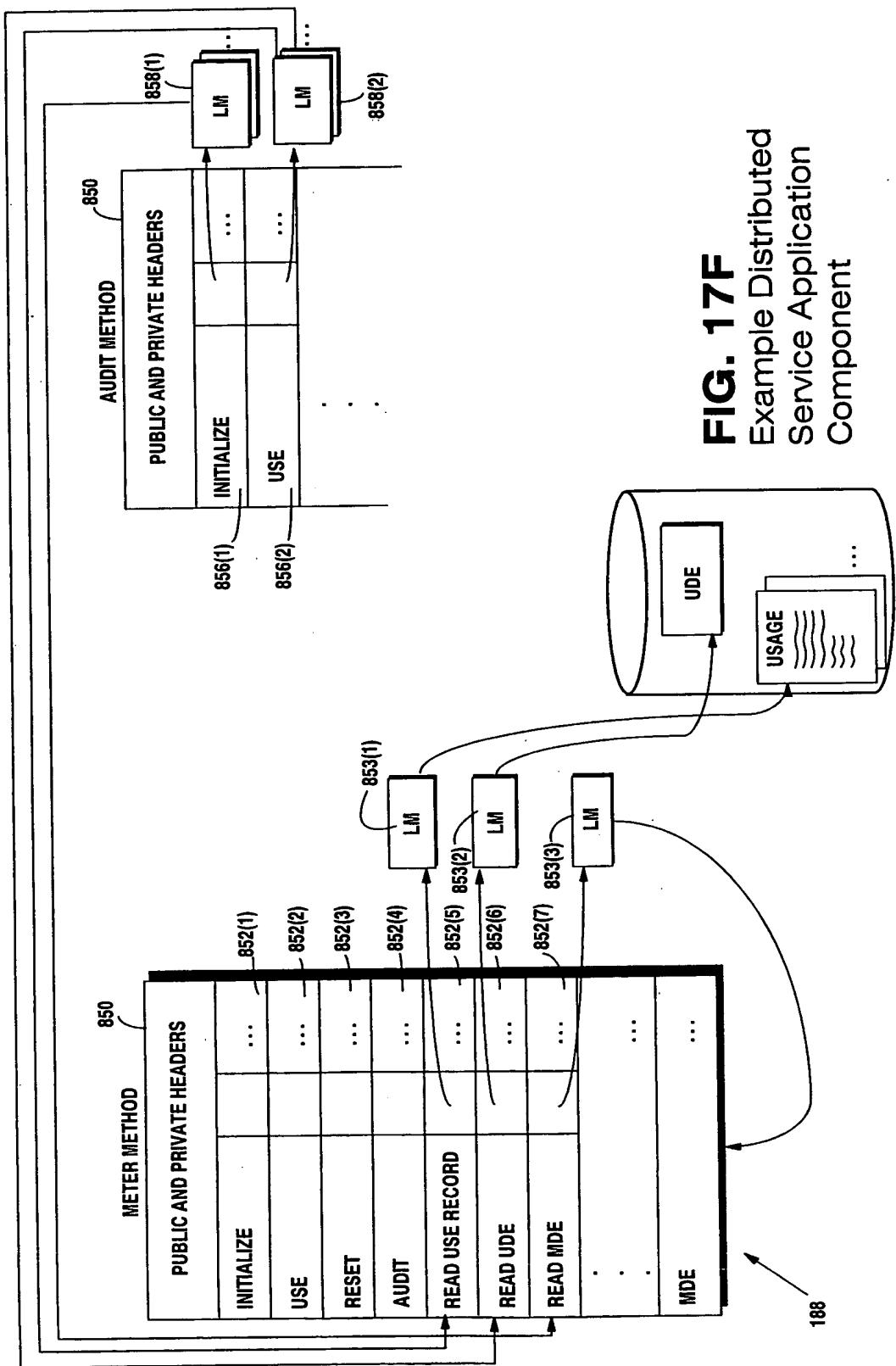
**FIG. 17E-3**  
Notification Model



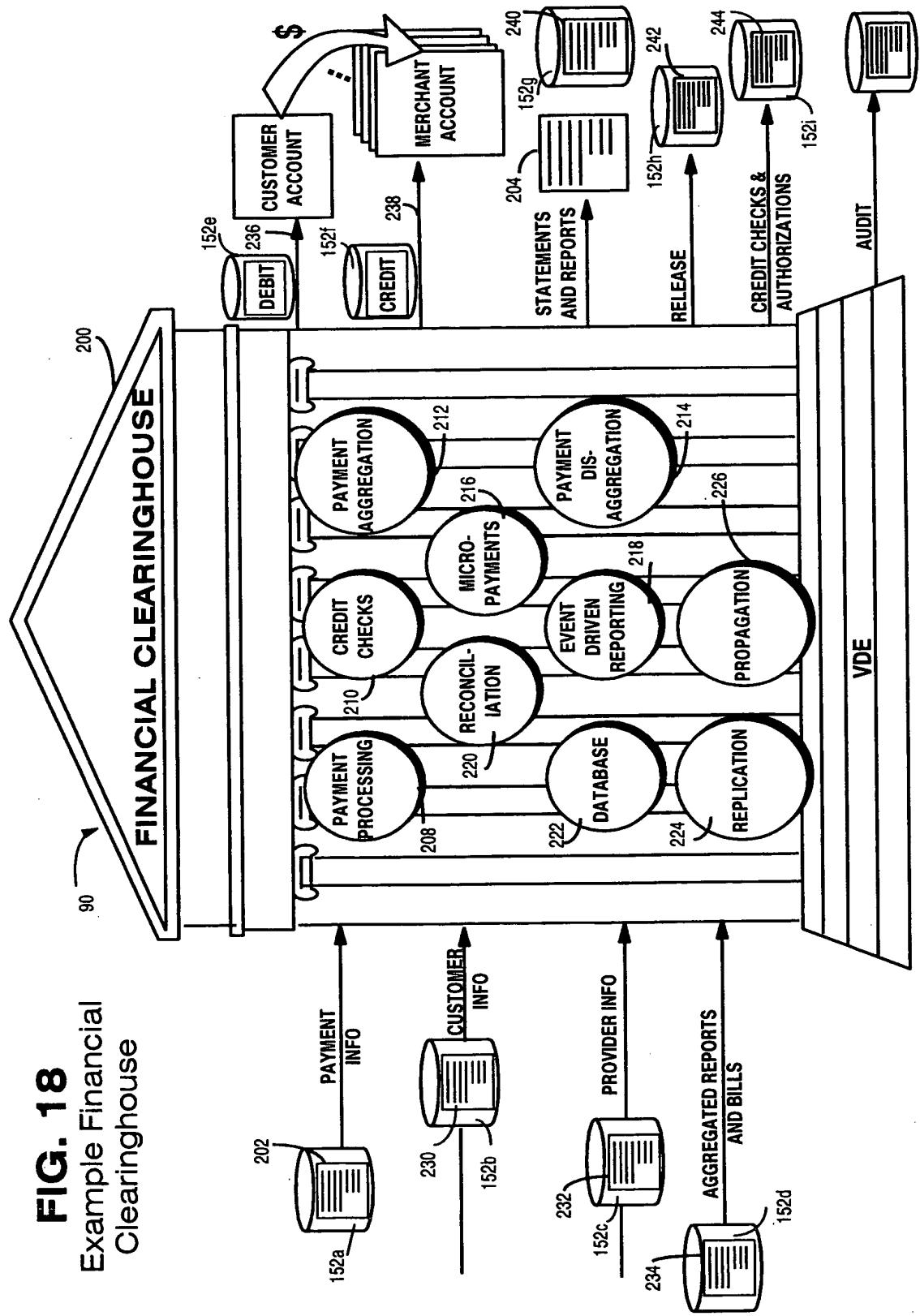
**FIG. 17E-4**  
Prior Authorization Model



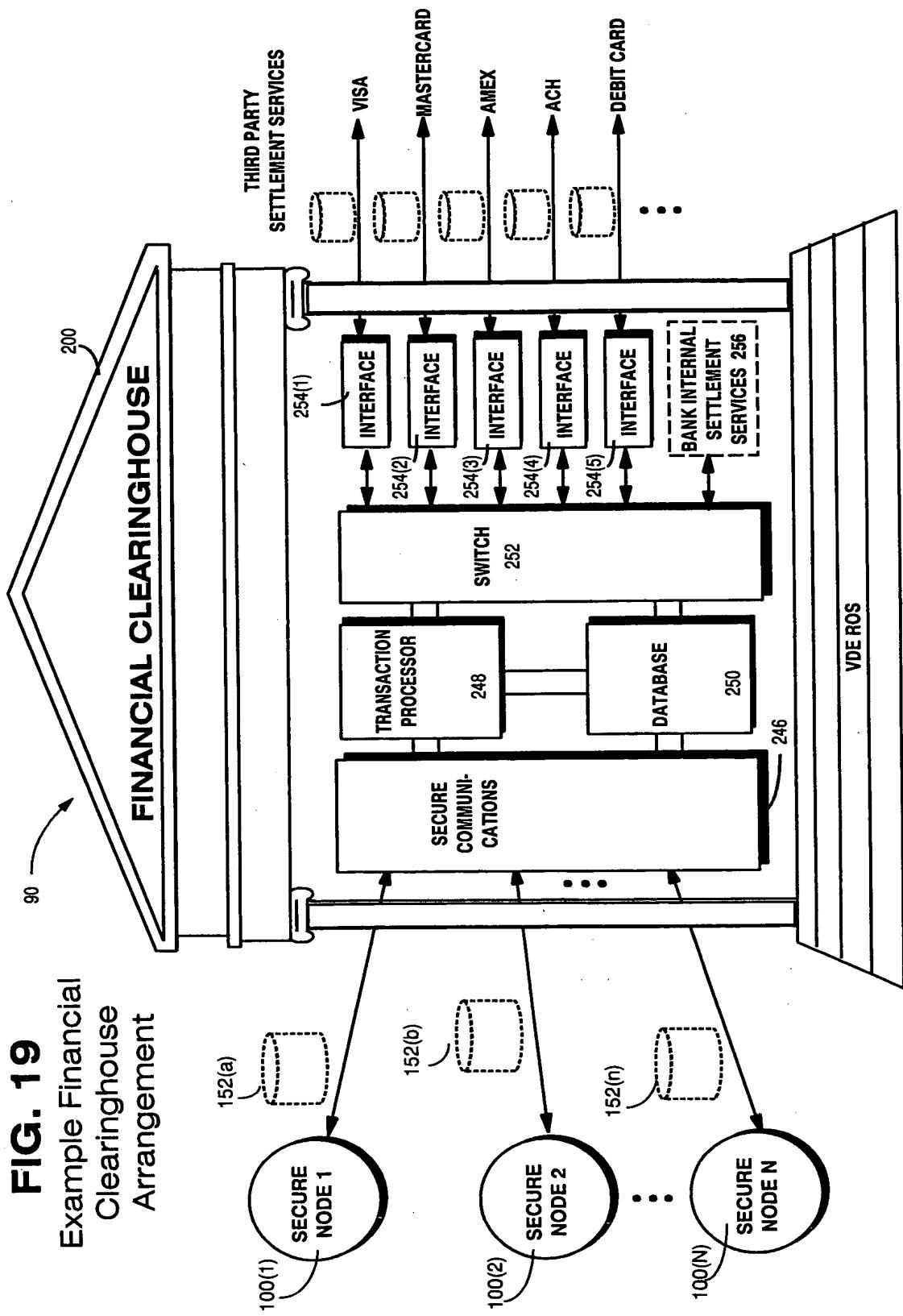
**FIG. 17E-1**  
Intermediation Model



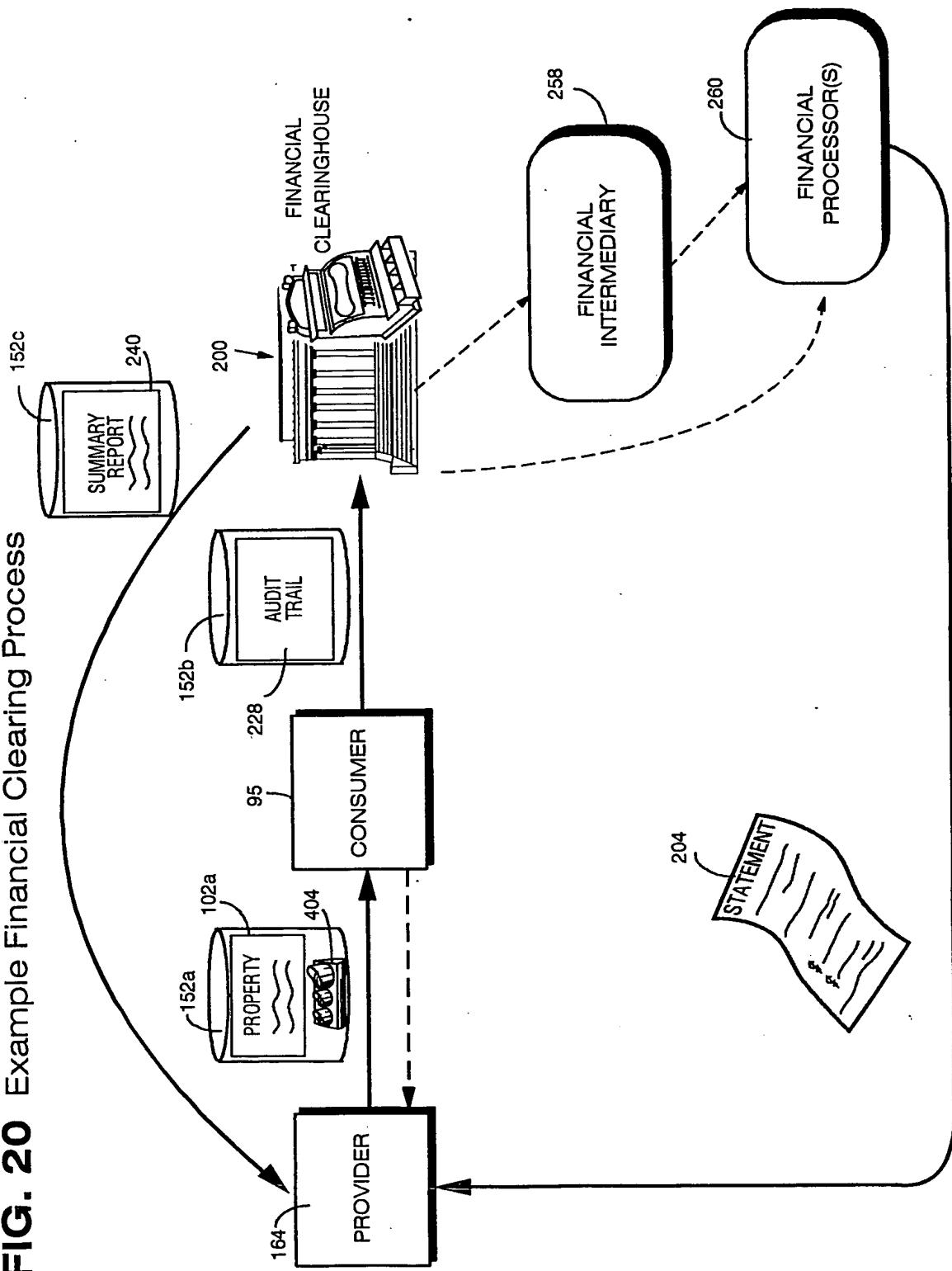
**FIG. 18**  
Example Financial  
Clearinghouse

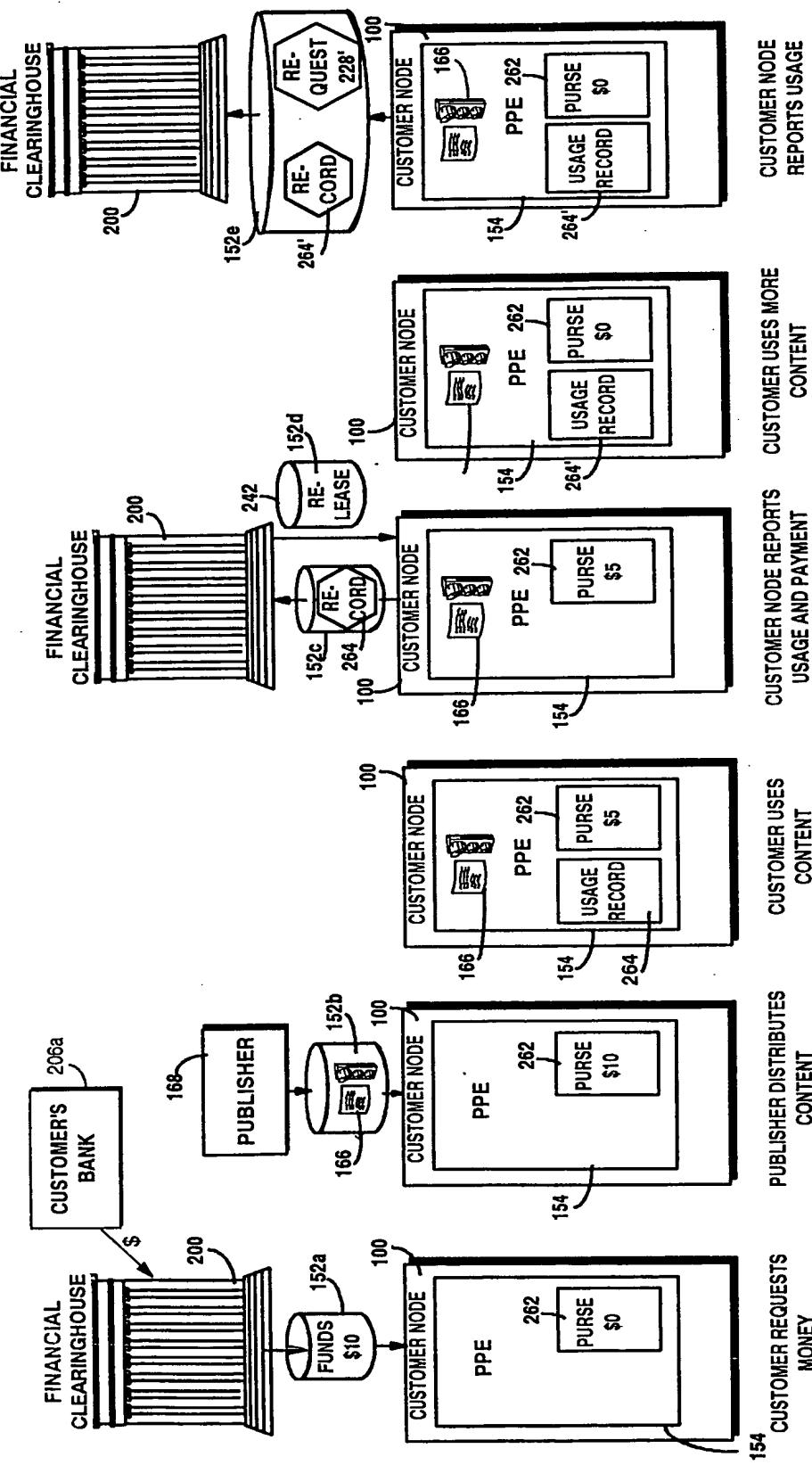


**FIG. 19**  
Example Financial  
Clearinghouse  
Arrangement



**FIG. 20** Example Financial Clearing Process





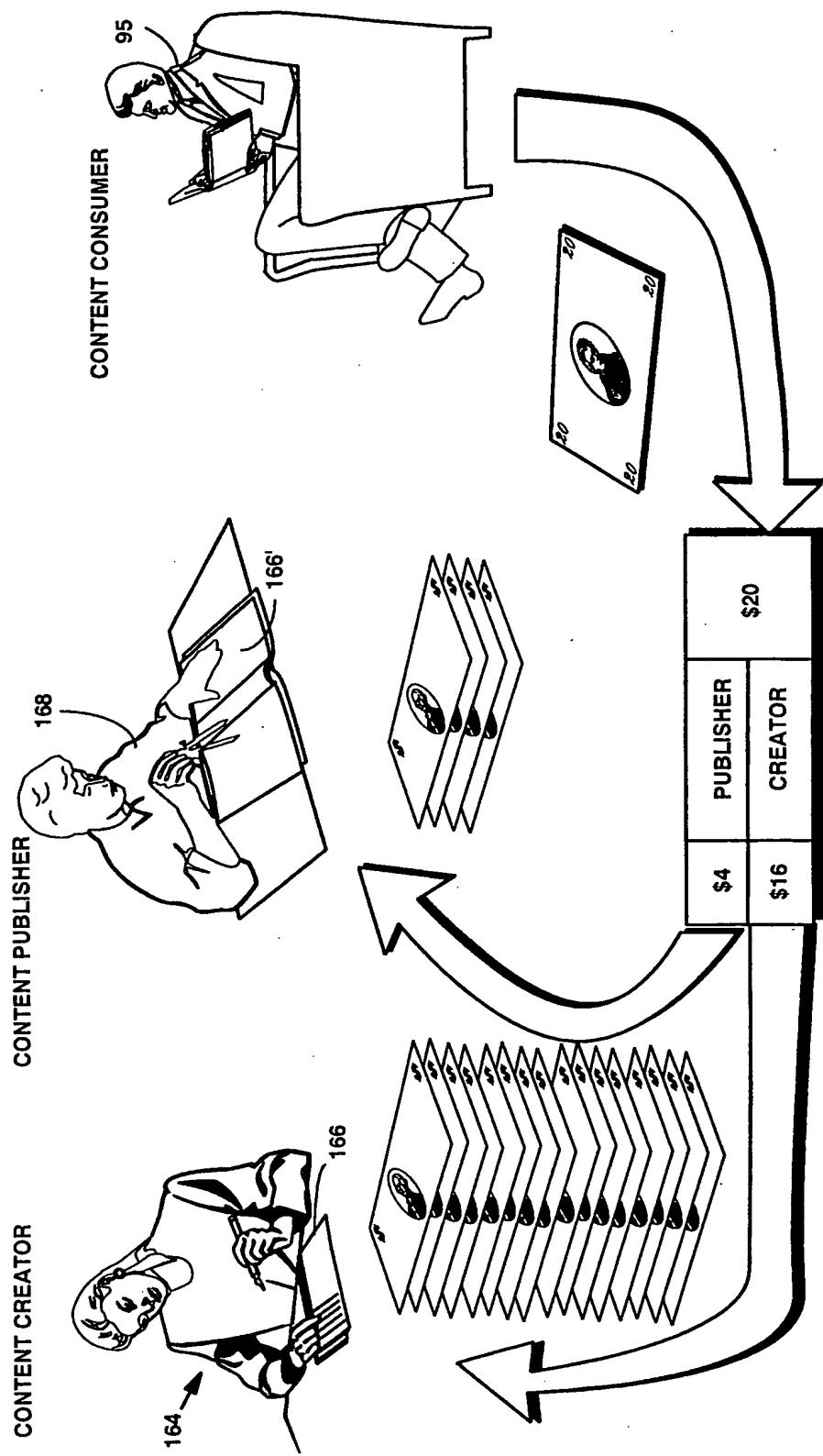
**FIG. 20A**

FIG. 20B FIG. 20C

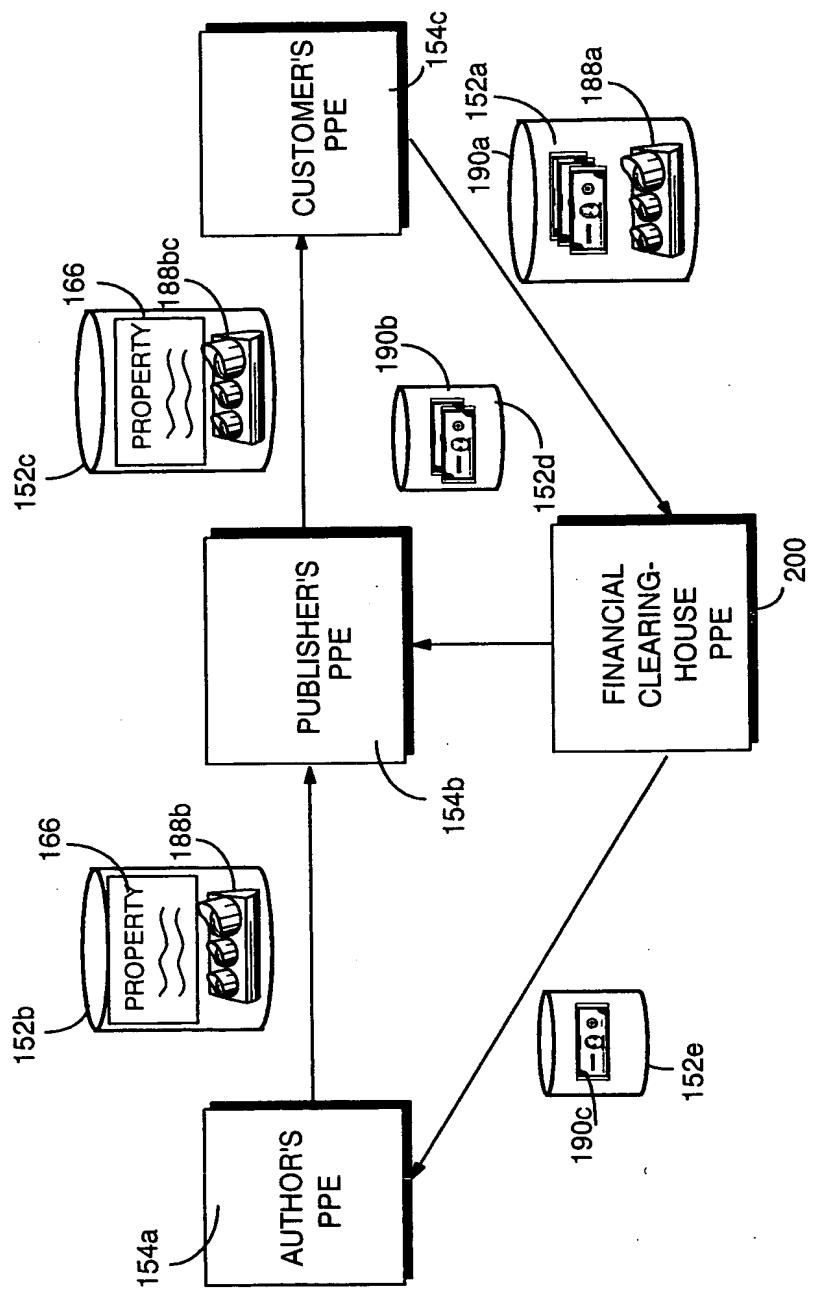
## FIG. 20D FIG. 20E

FIG. 20F

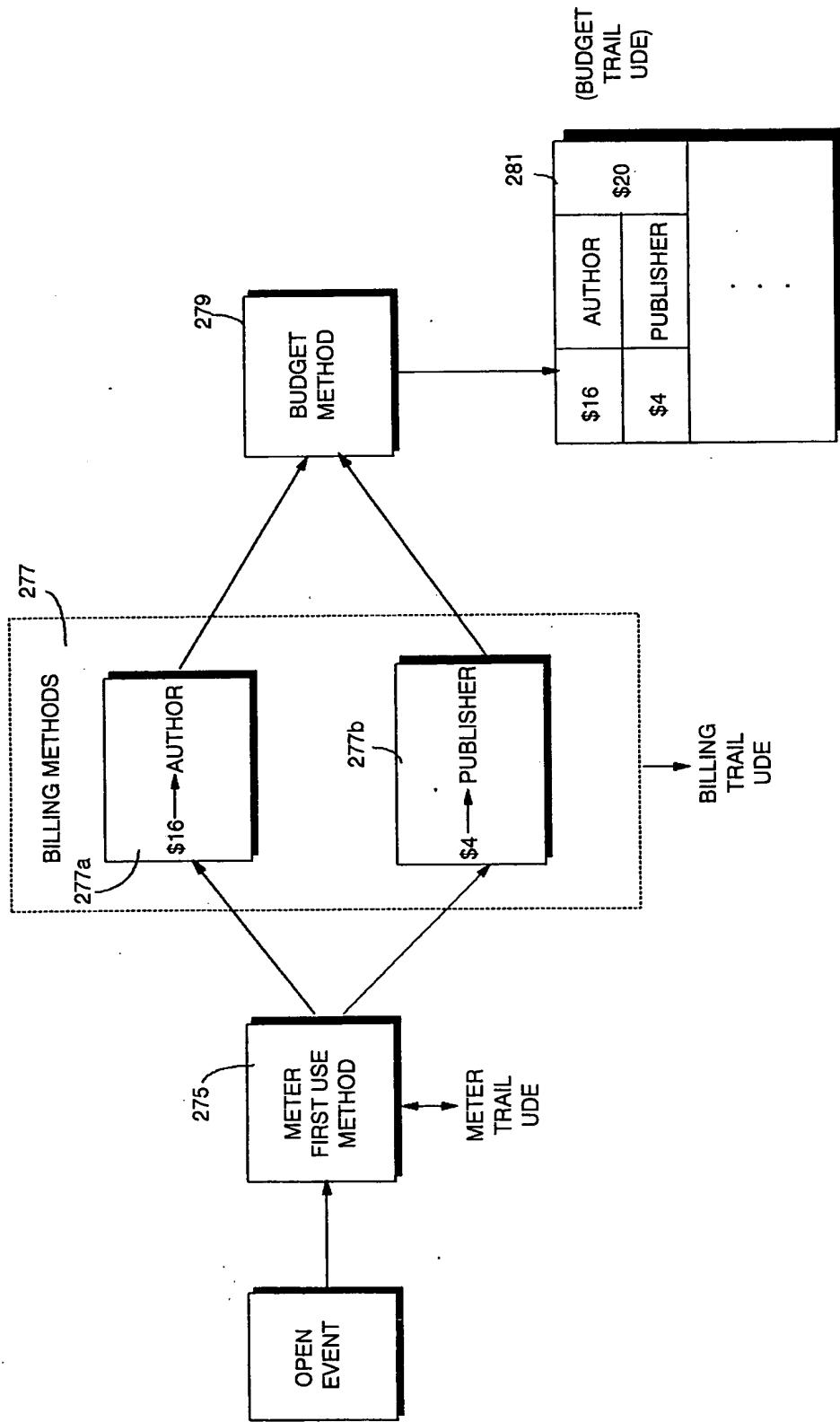
## EXAMPLE FINANCIAL CLEARING ACTIVITIES



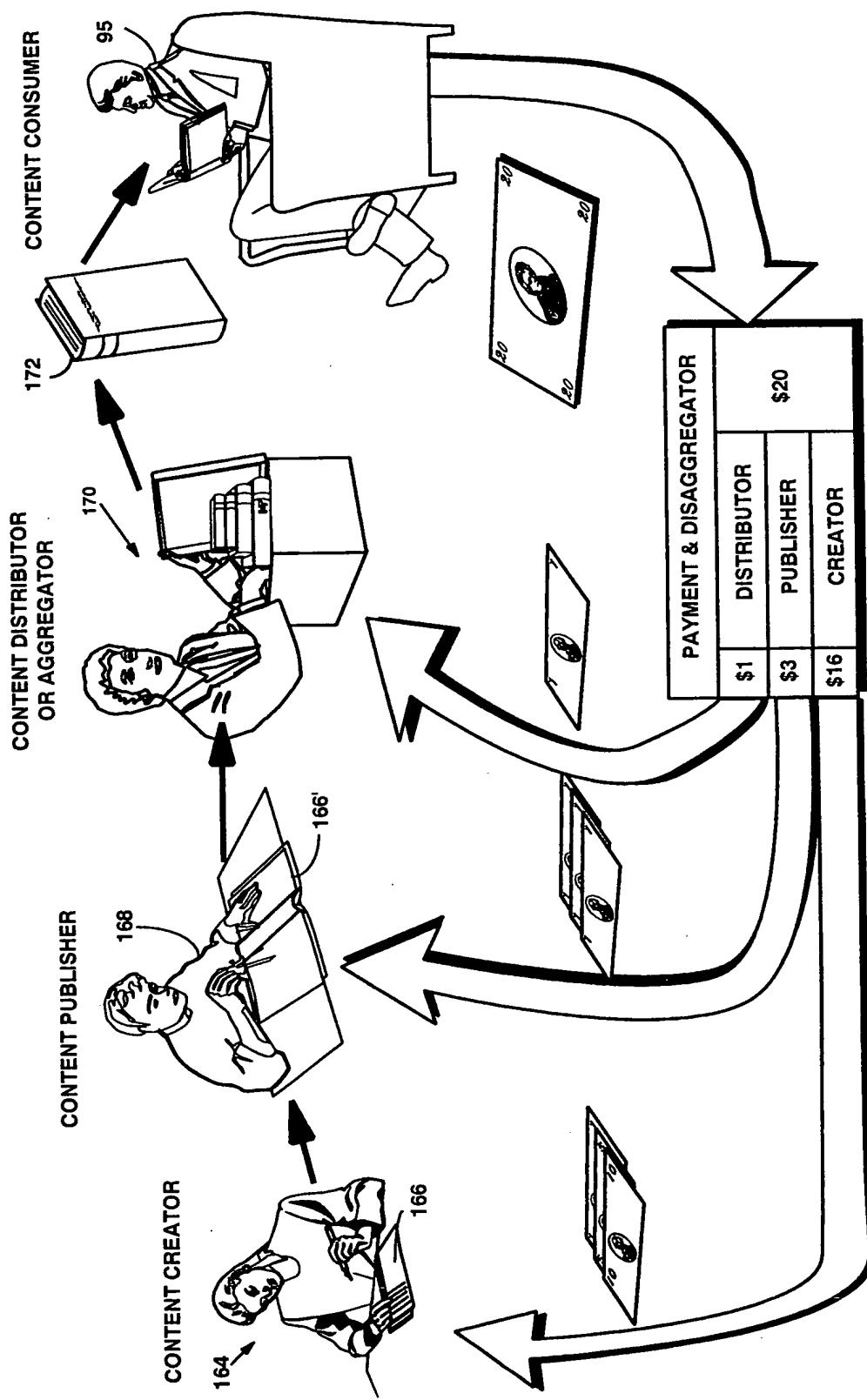
**FIG. 21** Example Payment Disaggregation



## FIG. 22 PAYMENT AND REDISTRIBUTION EXAMPLE

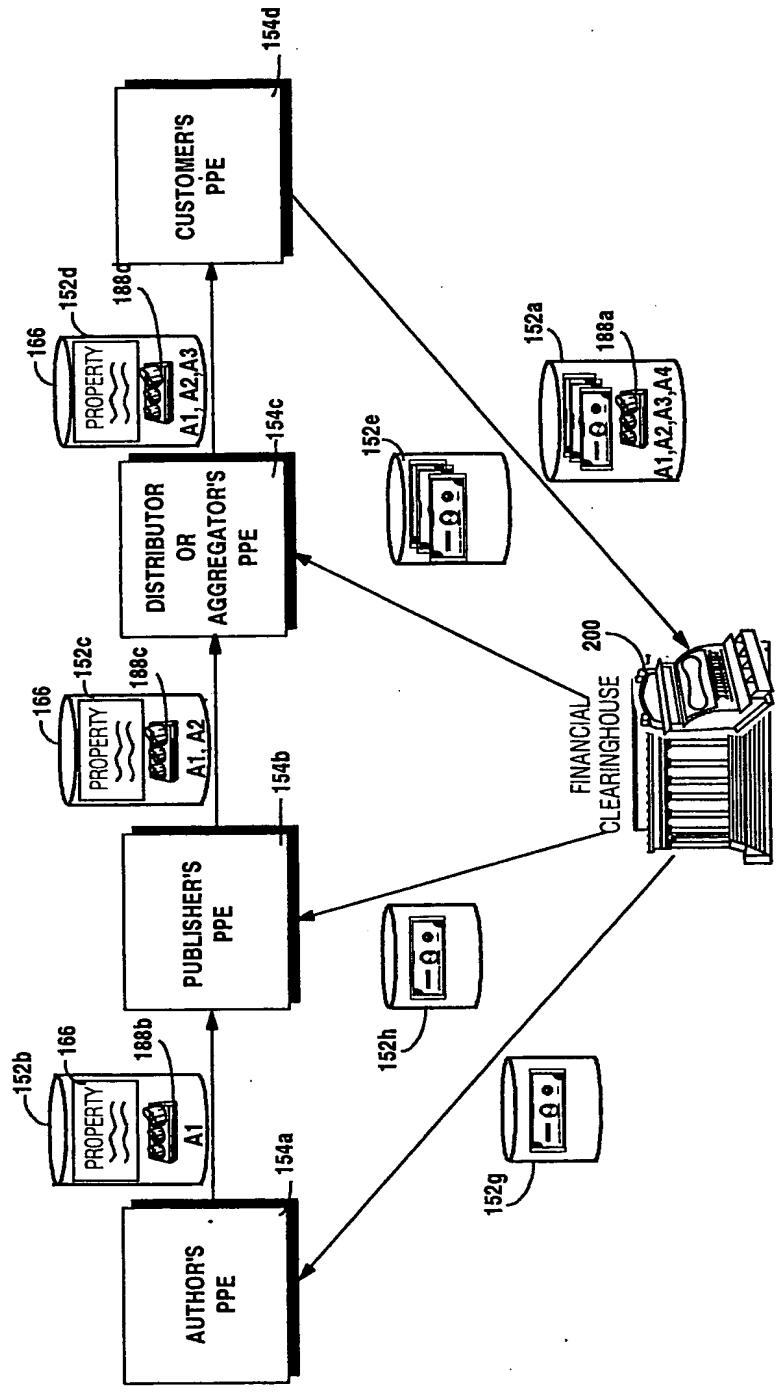


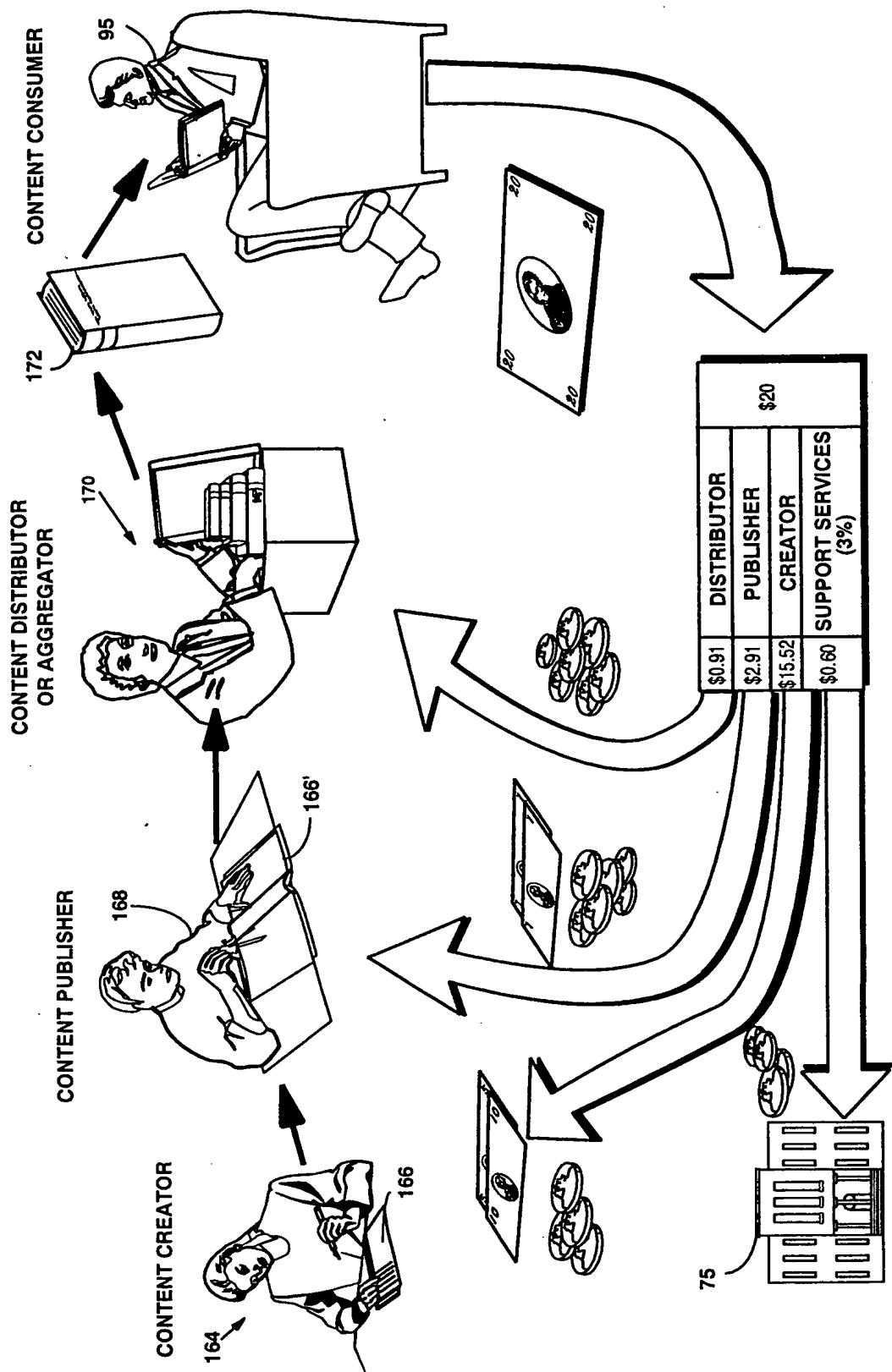
**FIG. 22A User Node Disaggregation Example**



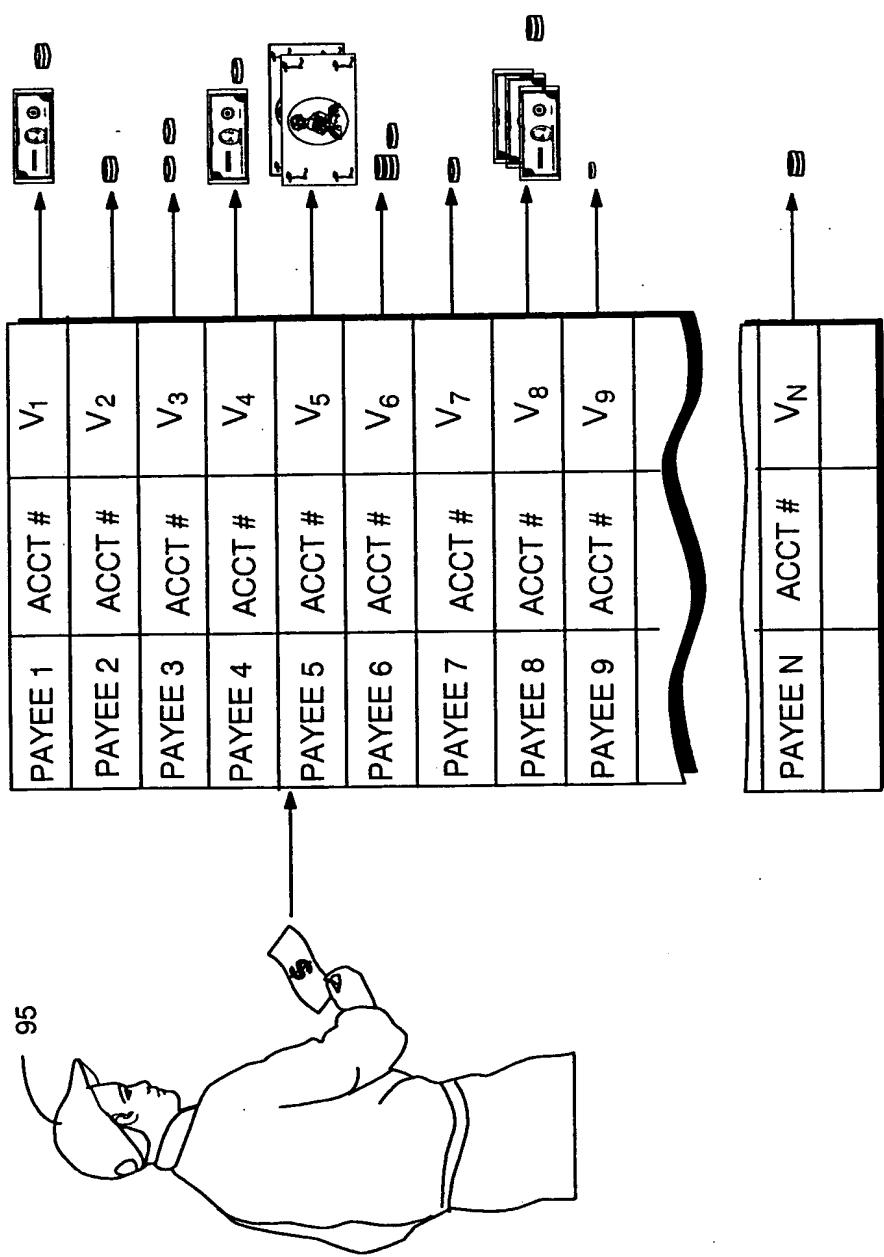
**FIG. 23** Payment Disaggregation

**FIG. 24**  
EXAMPLE PAYMENT  
AND REDISTRIBUTION  
SCENARIO



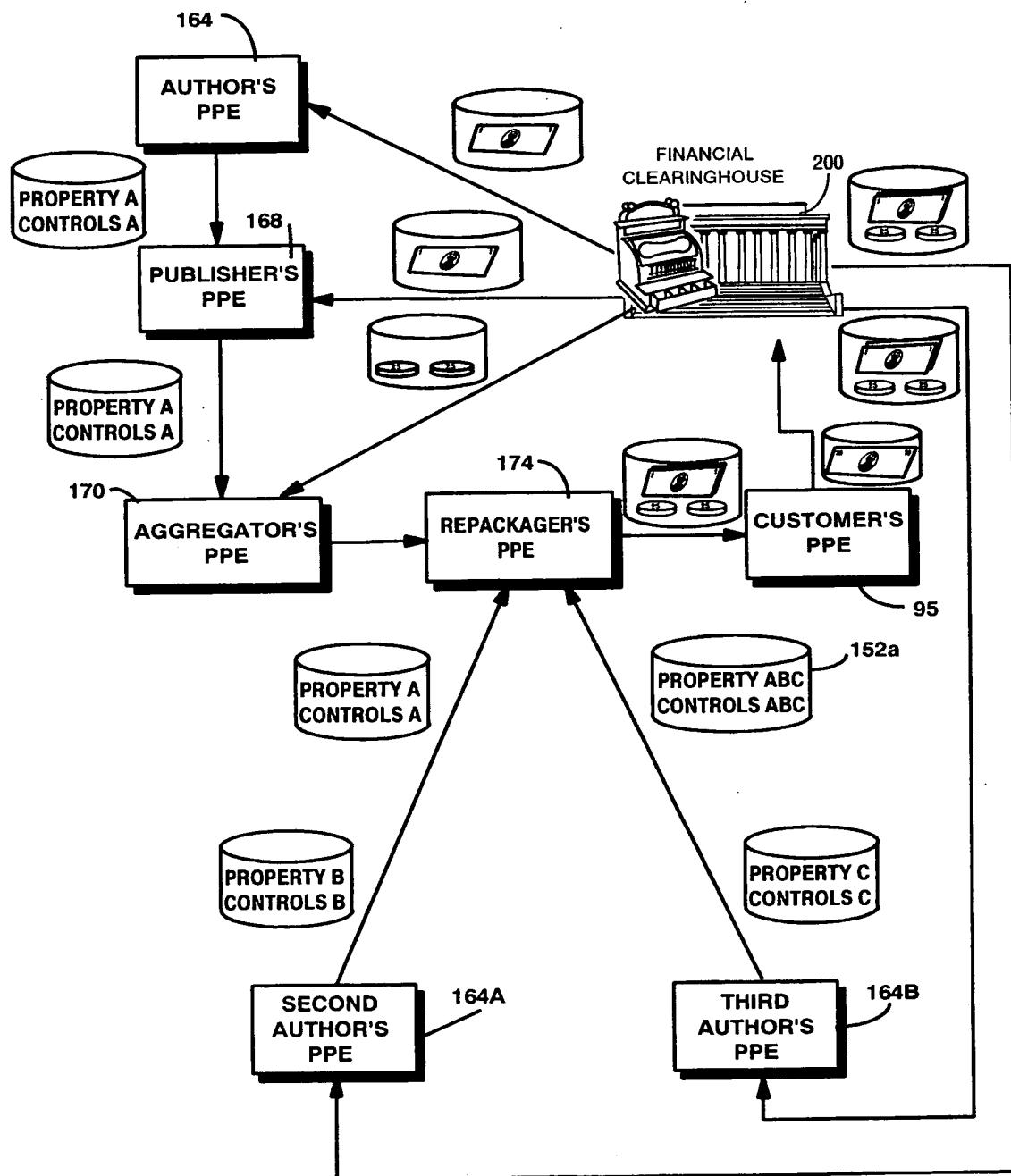


**FIG. 25** Example Payment Disaggregation

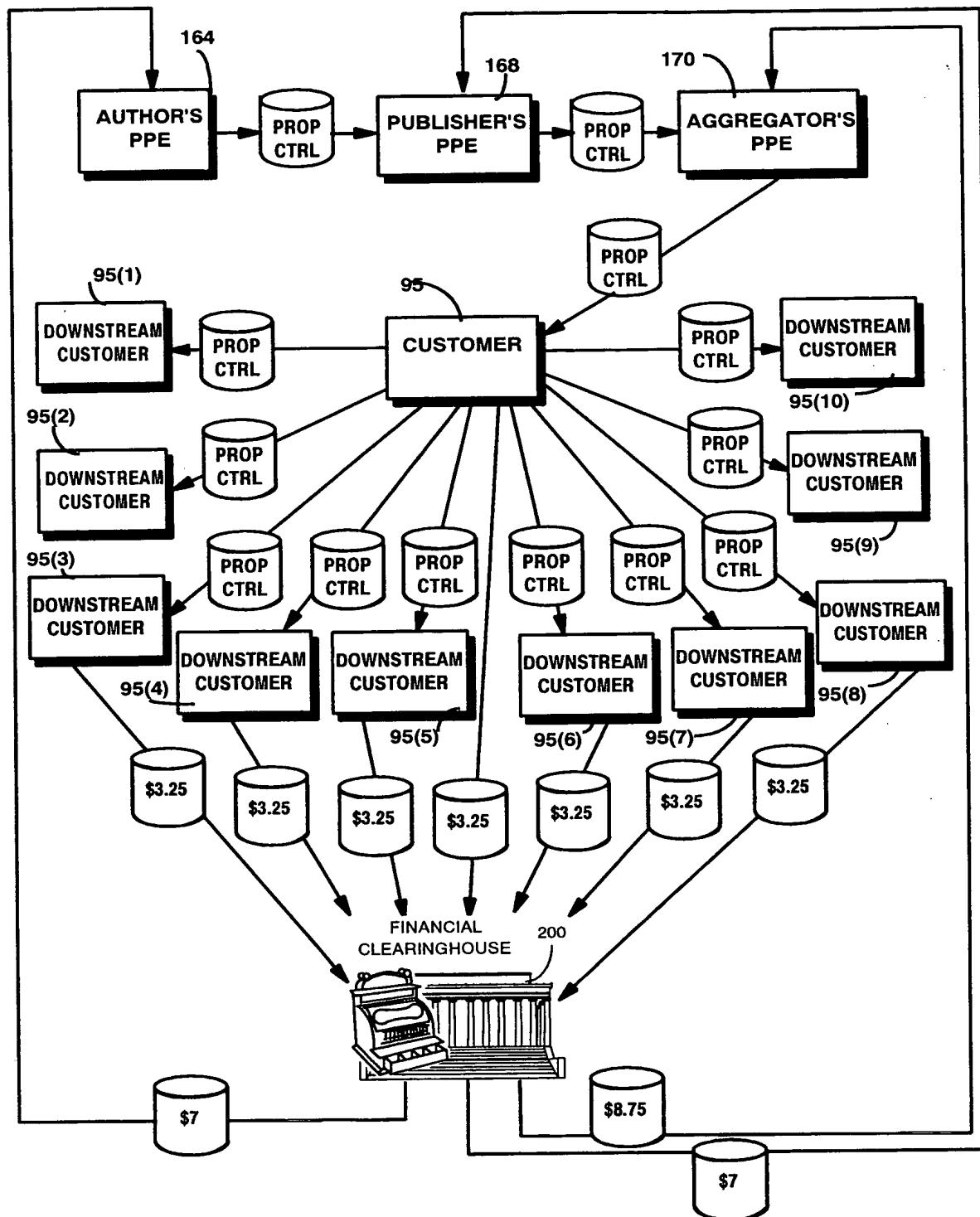


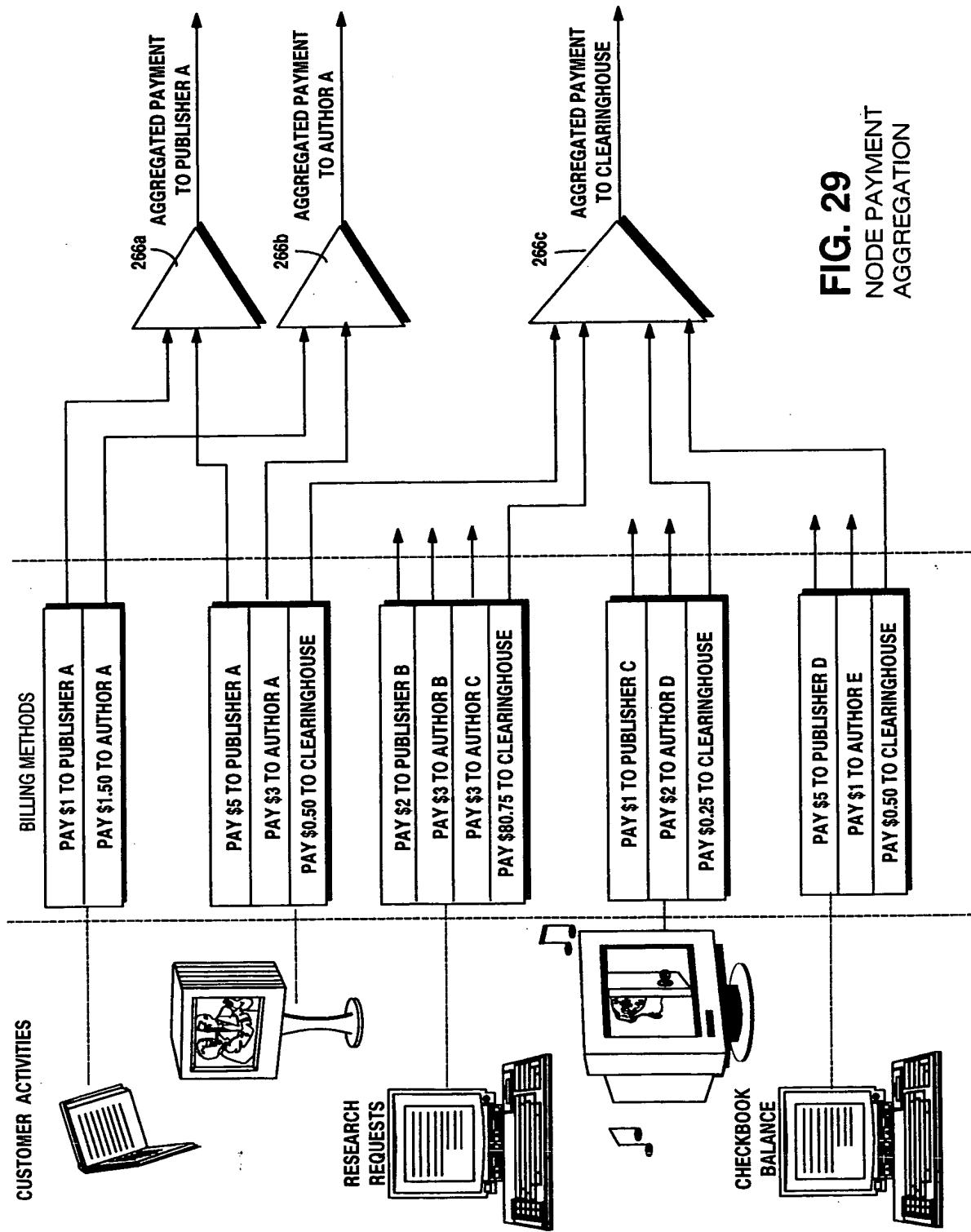
**FIG. 26** PAYMENT DISAGGREGATION

**FIG. 27**  
Example Payment and  
Redistribution Scenario

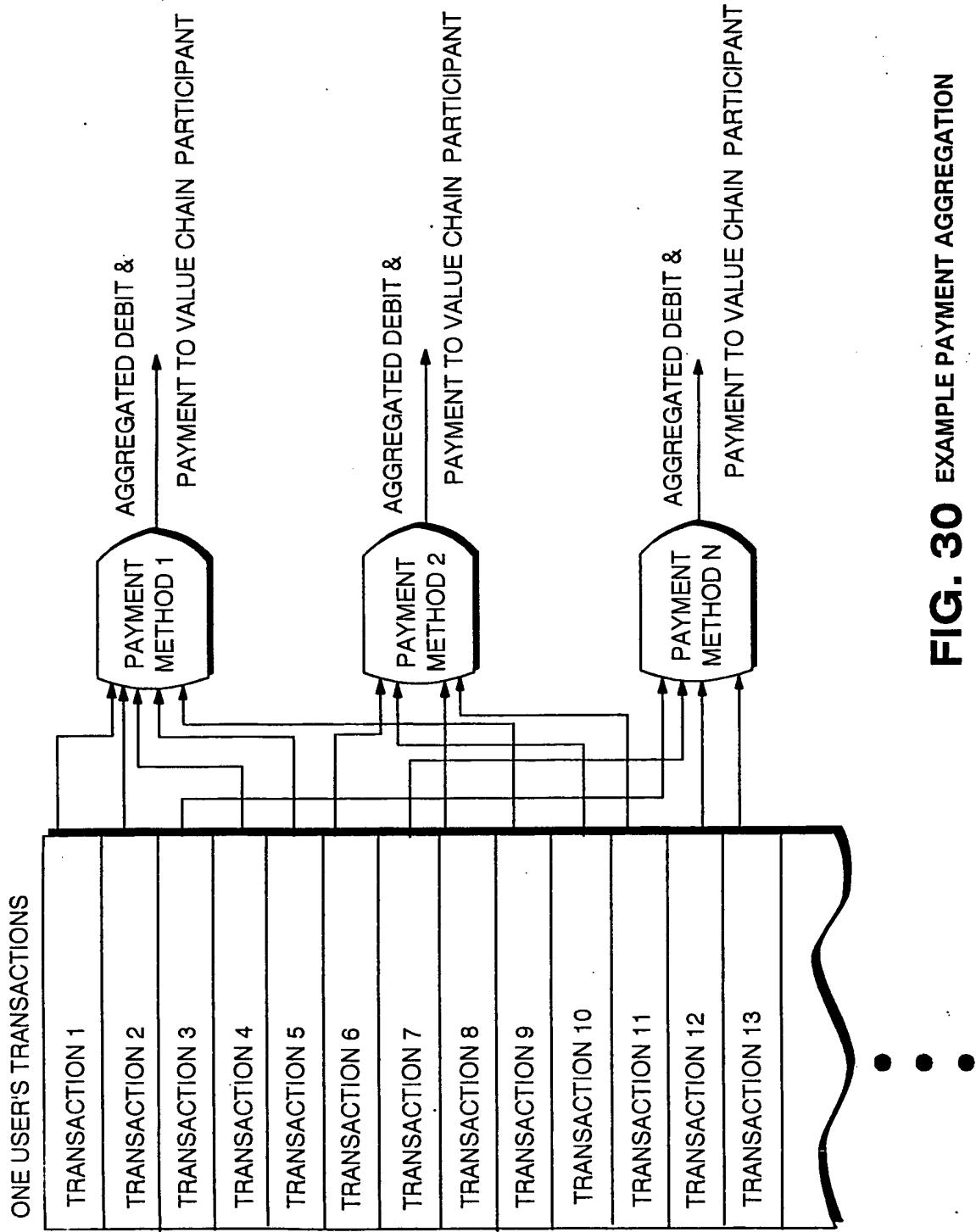


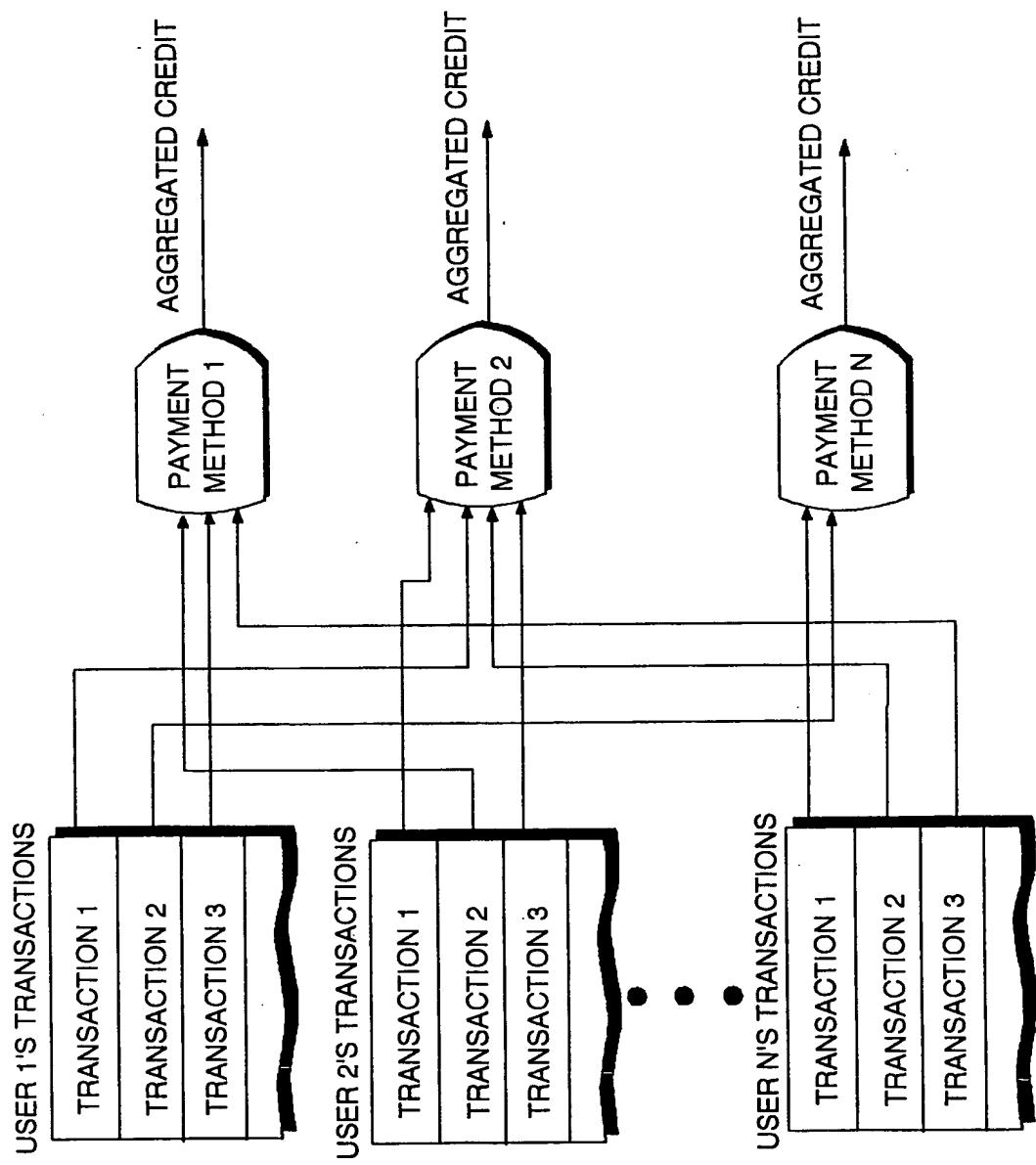
**FIG. 28** Example Super Distribution





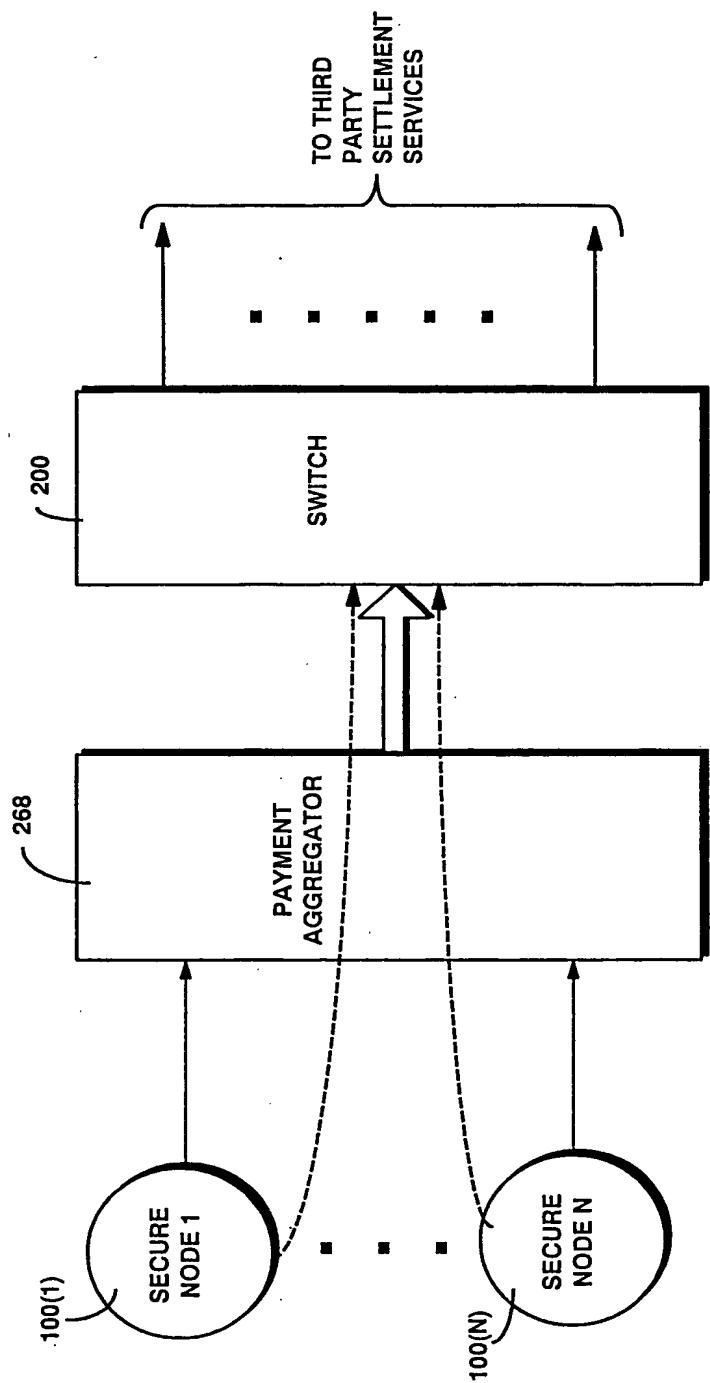
**FIG. 29**  
NODE PAYMENT AGGREGATION



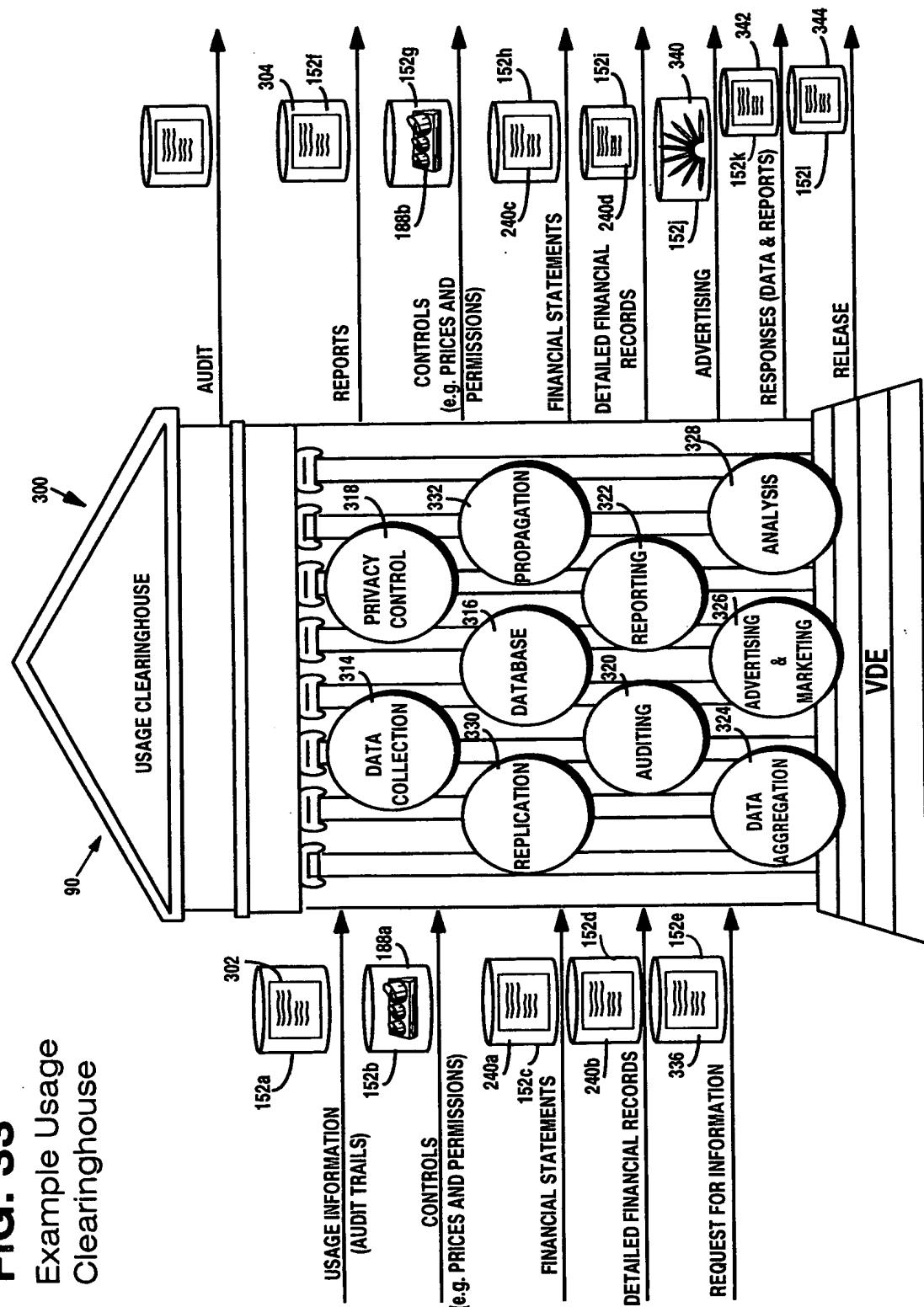


**FIG. 3.1** Financial Clearinghouse  
Example Payment Aggregation

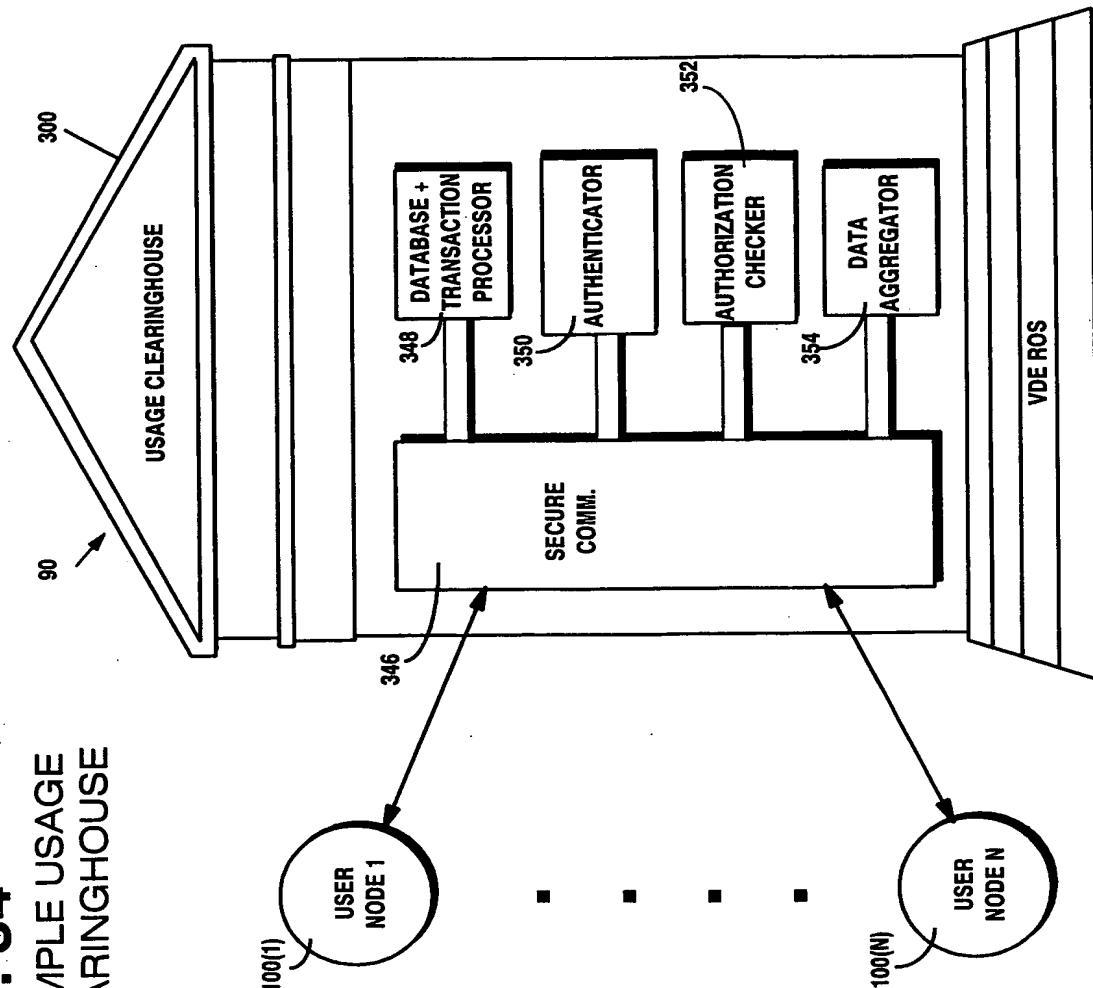
**FIG. 32 EXAMPLE FINANCIAL CLEARINGHOUSE ARRANGEMENT**



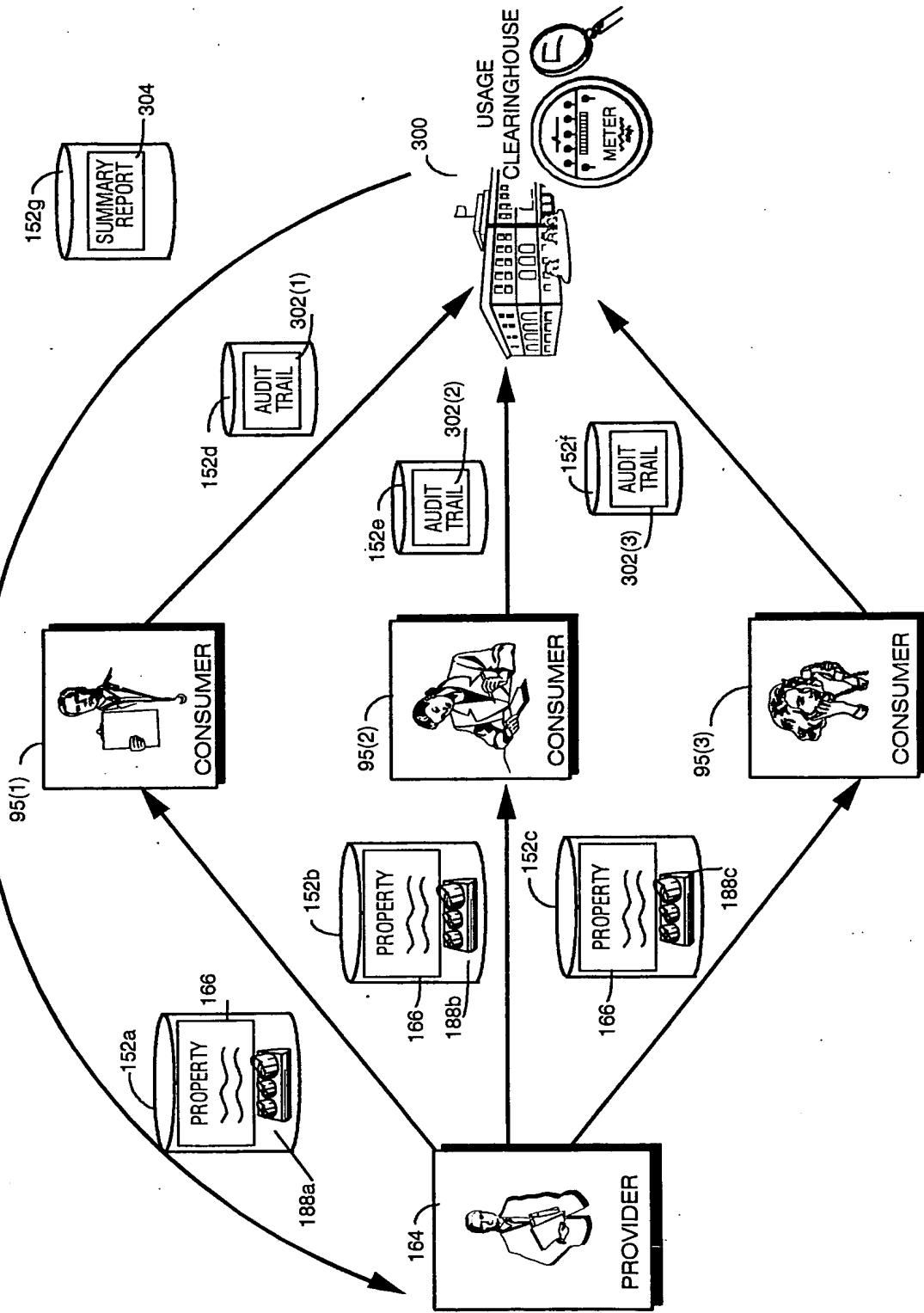
**FIG. 33**  
Example Usage  
Clearinghouse



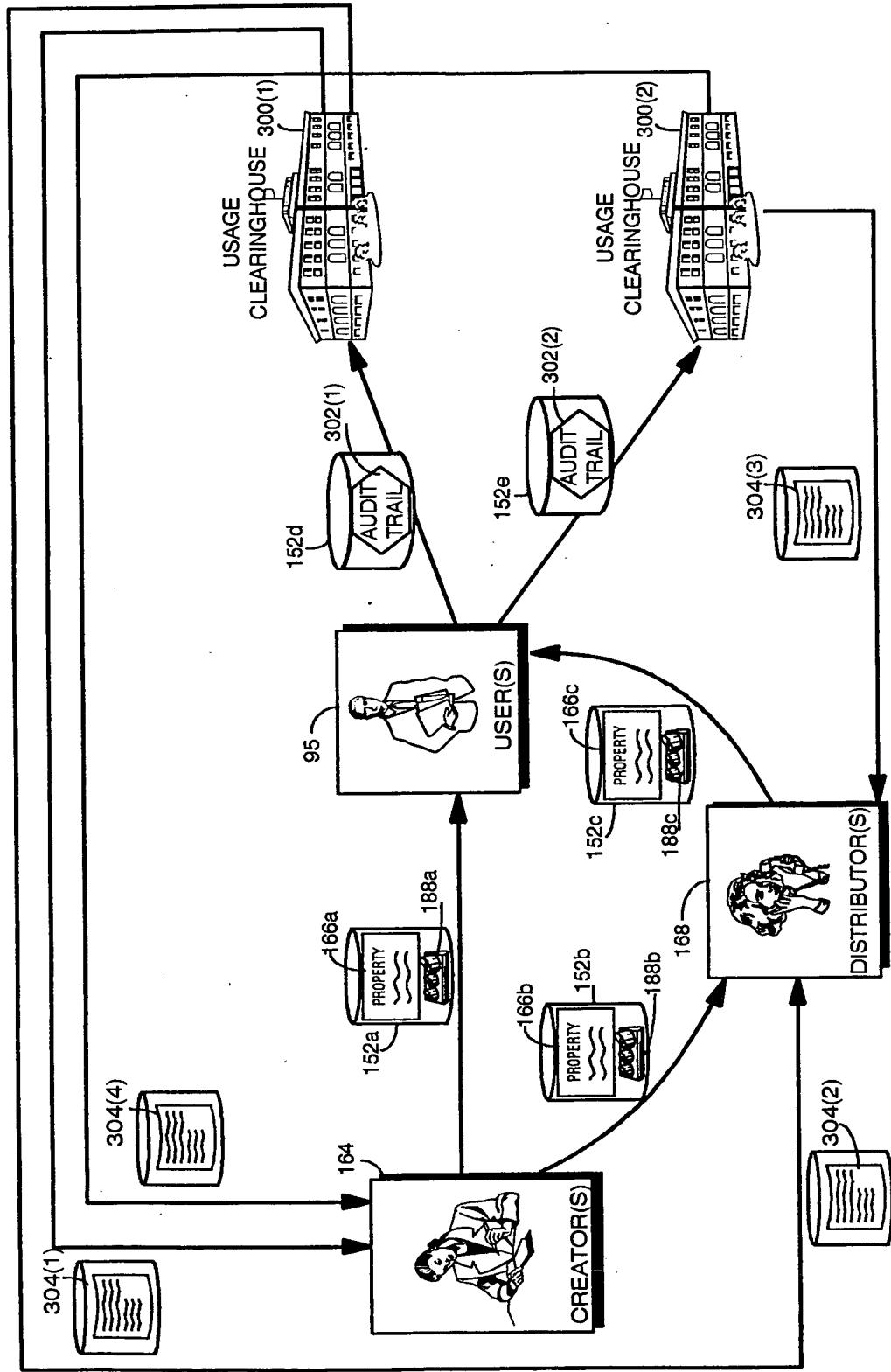
**FIG. 34**  
EXAMPLE USAGE  
CLEARINGHOUSE



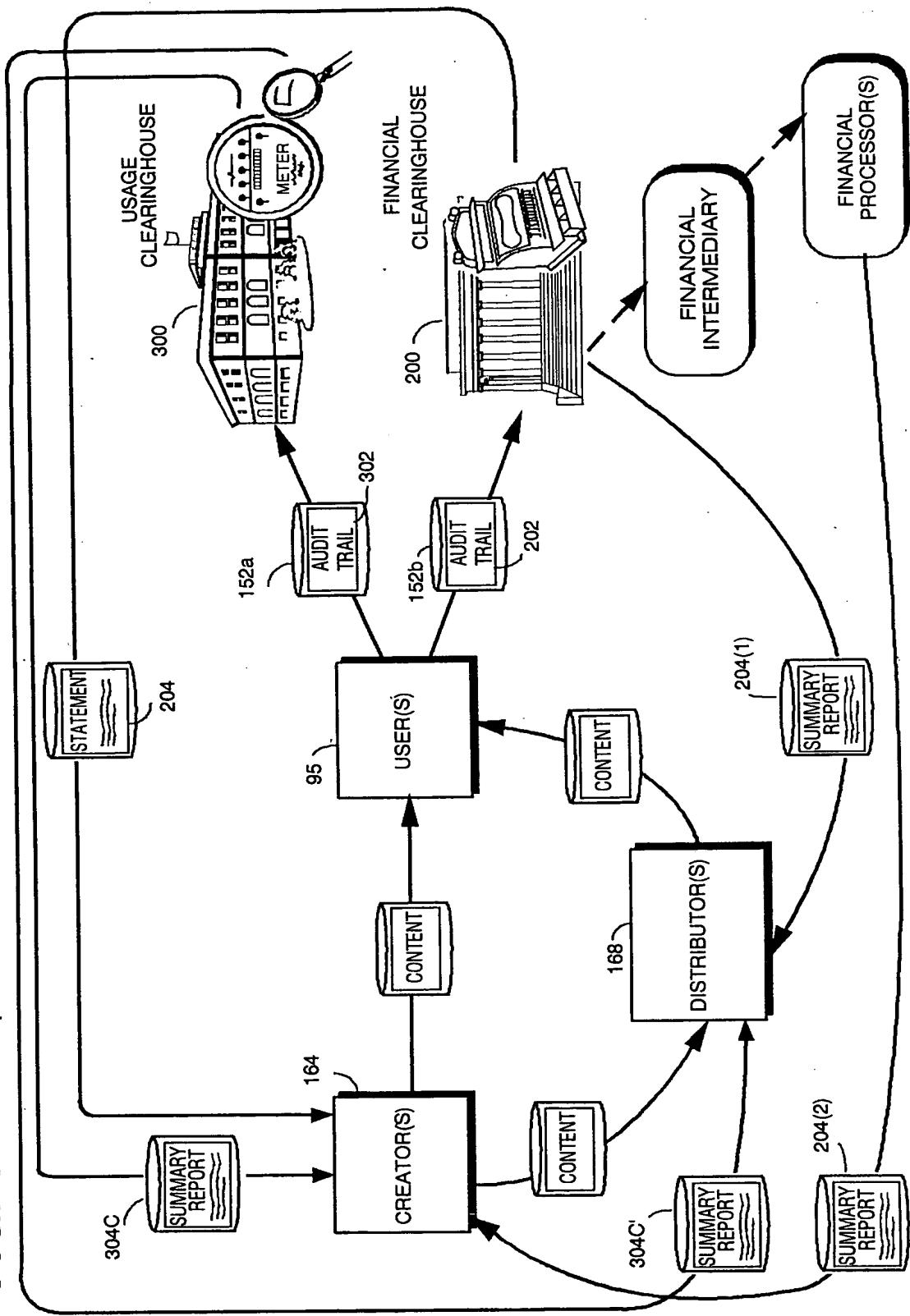
**FIG. 35** Example Usage Clearing Process



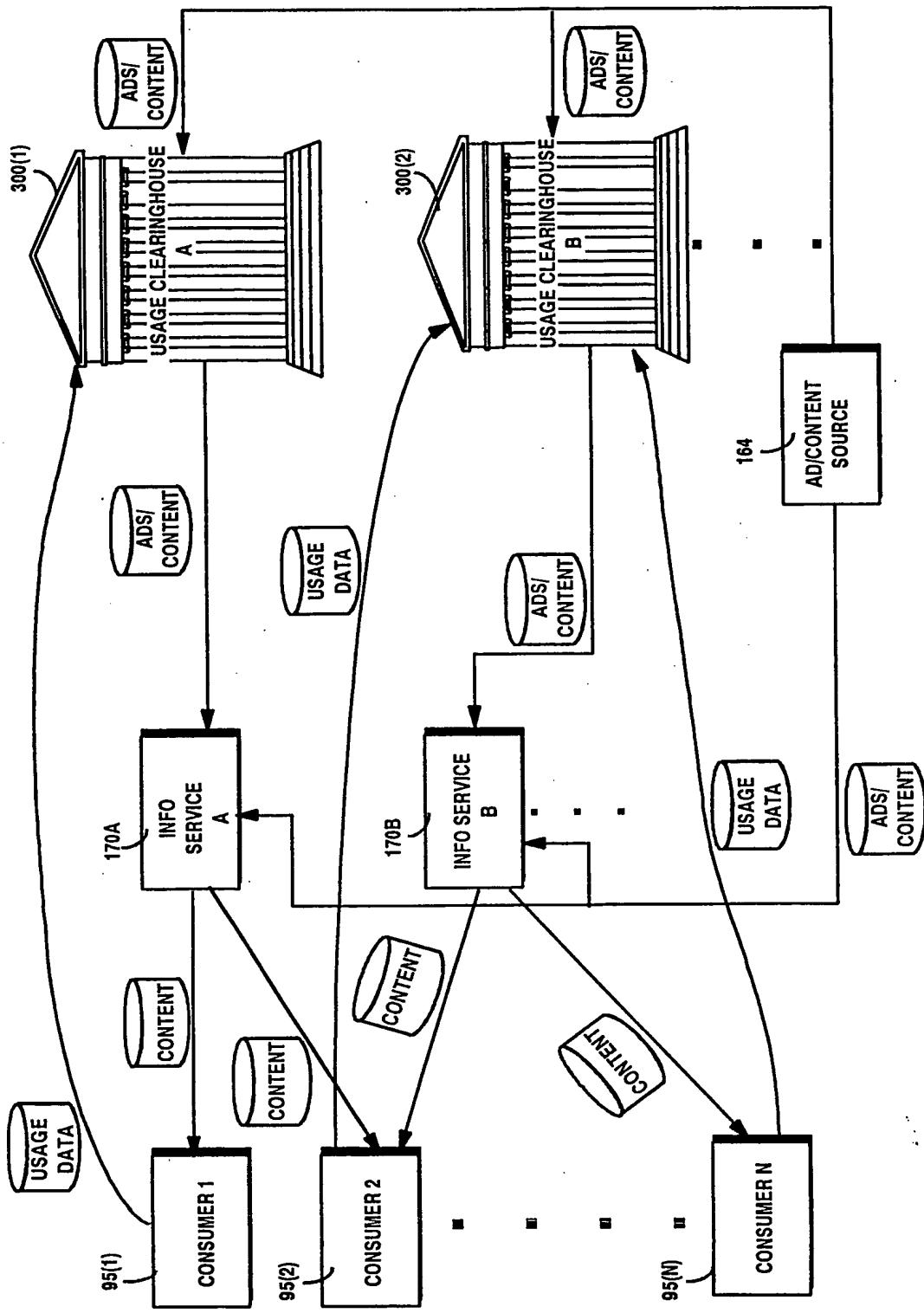
**FIG. 36** Example Usage Clearing Process



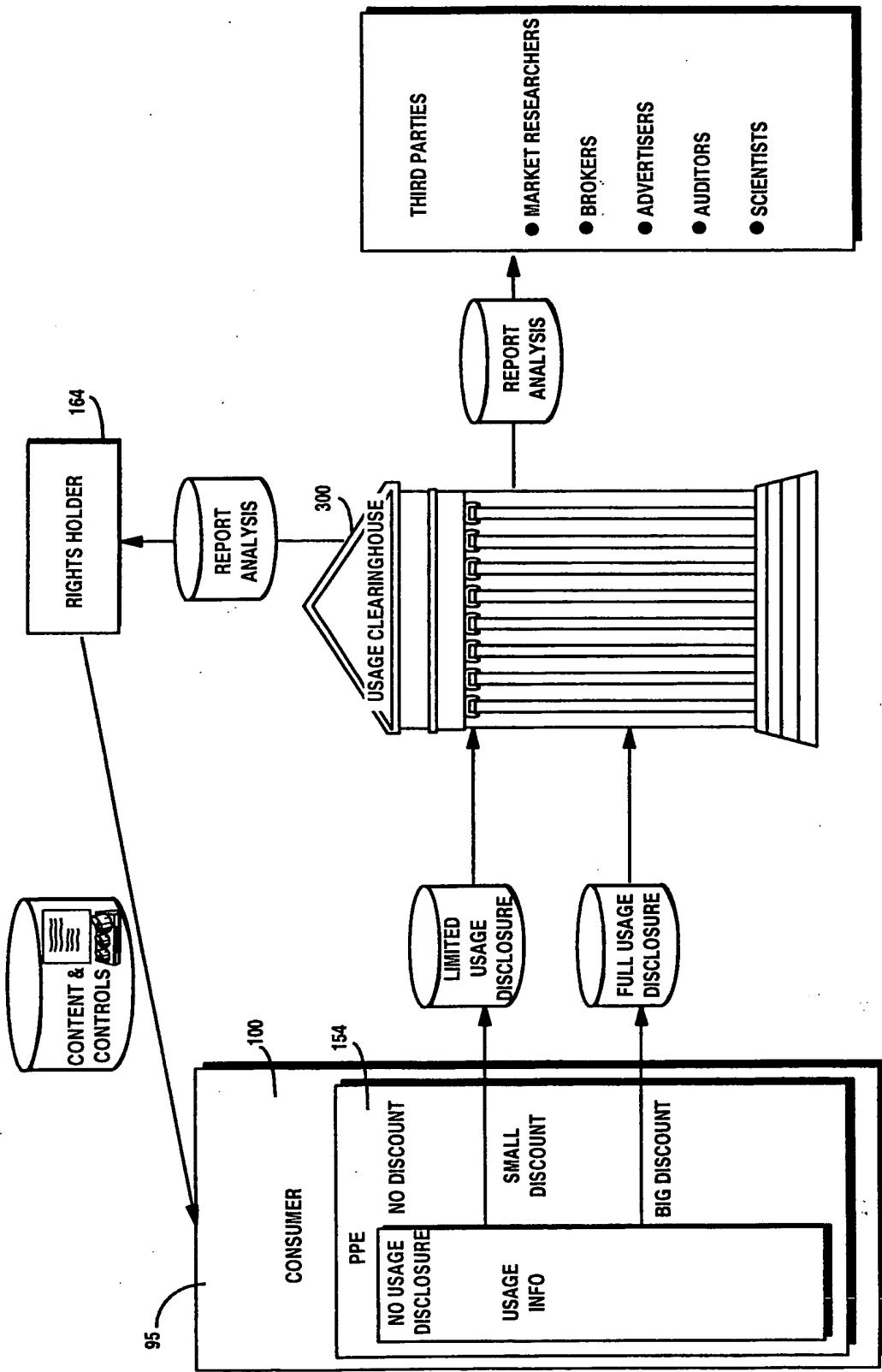
**FIG. 37** Example Financial & Usage Clearinghouse Process



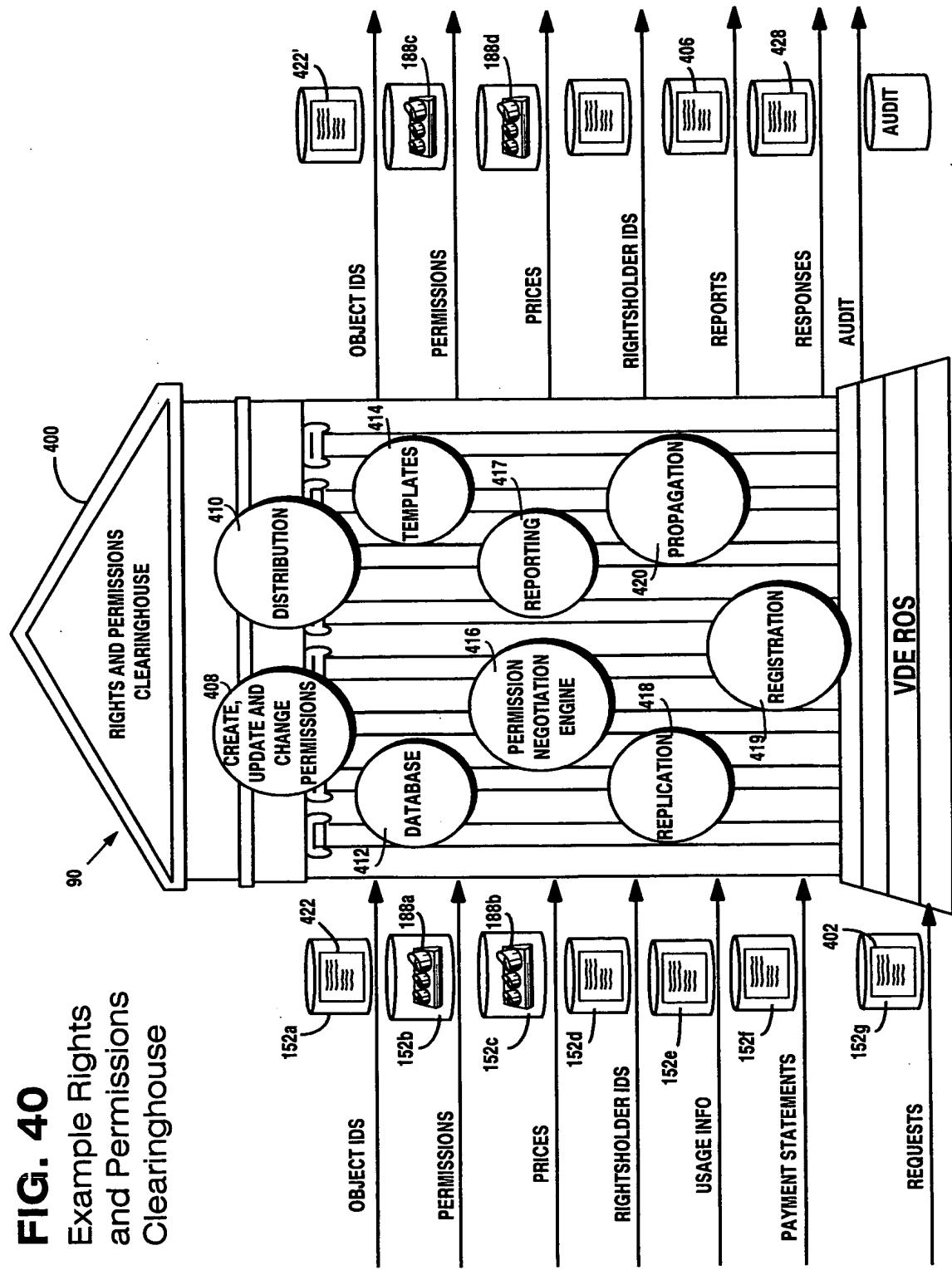
**FIG. 38** EXAMPLE USAGE CLEARINGHOUSE MEDIA PLACEMENT



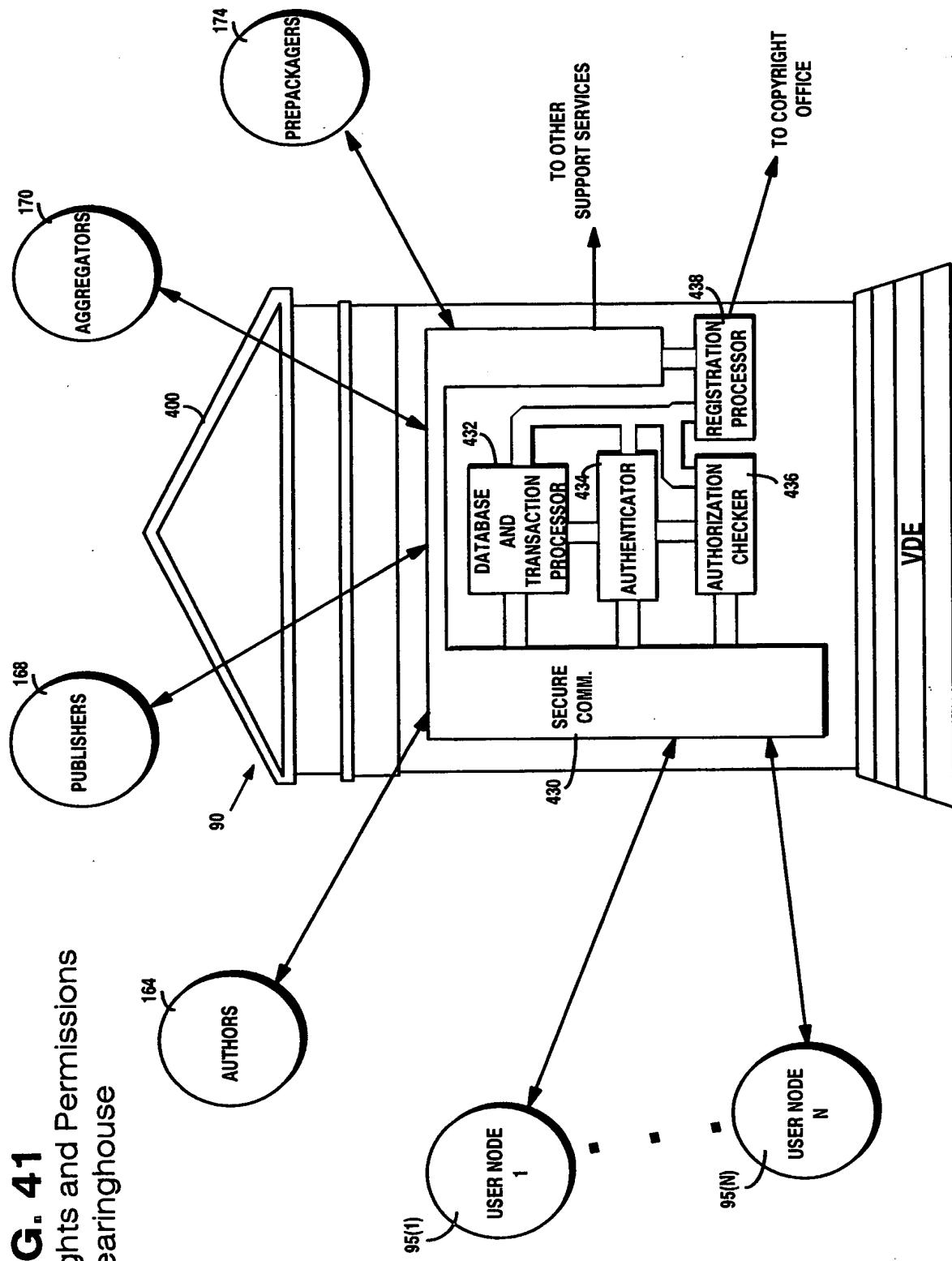
**FIG. 3.9**  
EXAMPLE USAGE CLEARINGHOUSE  
DISCOUNTS BASED ON DISCLOSURE



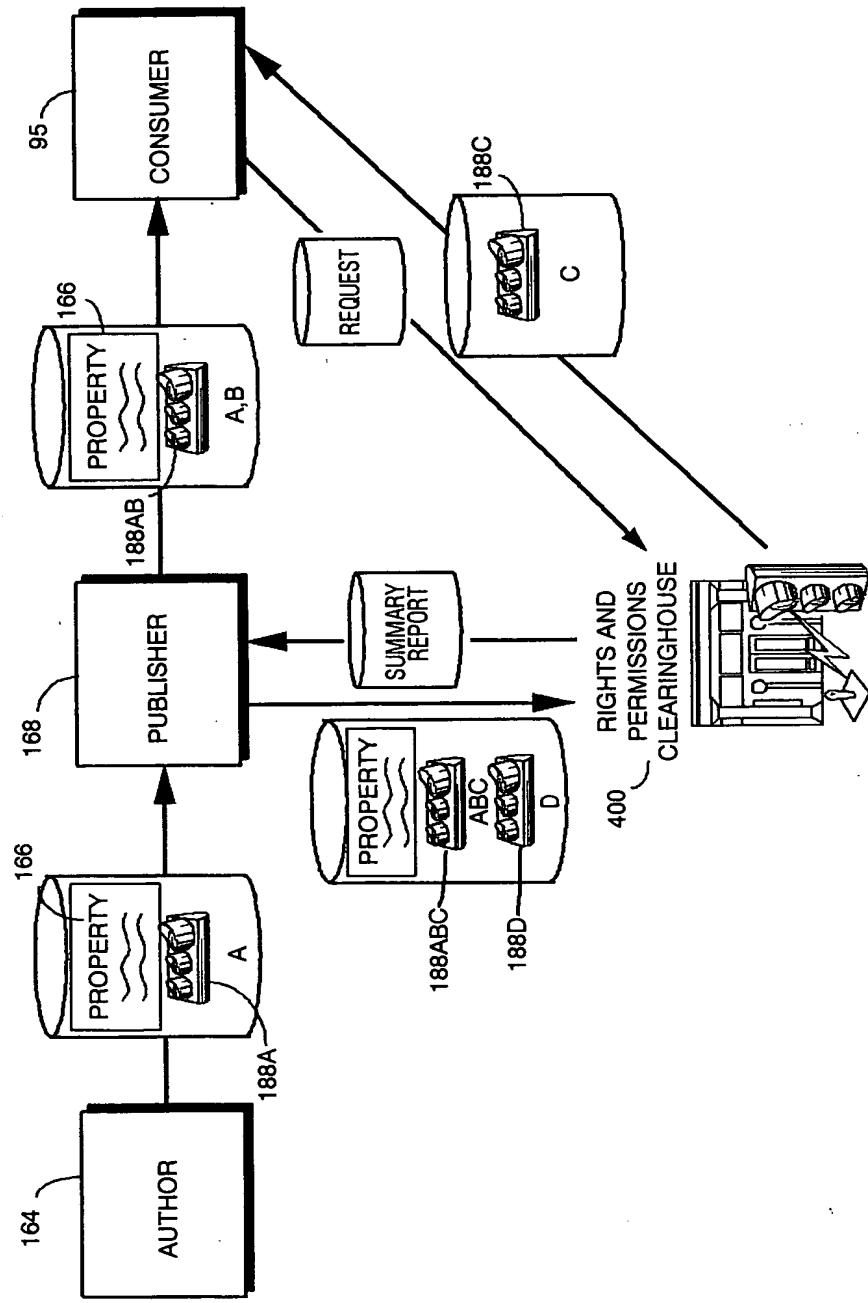
## FIG. 40 Example Rights and Permissions Clearinghouse

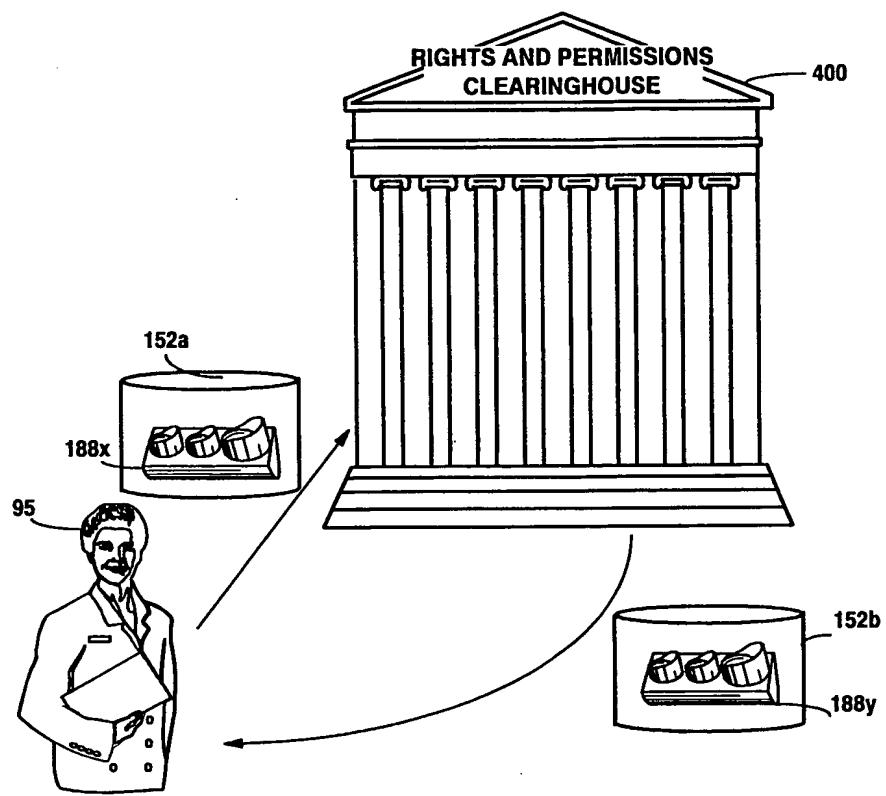


**FIG. 4.1**  
Rights and Permissions  
Clearinghouse



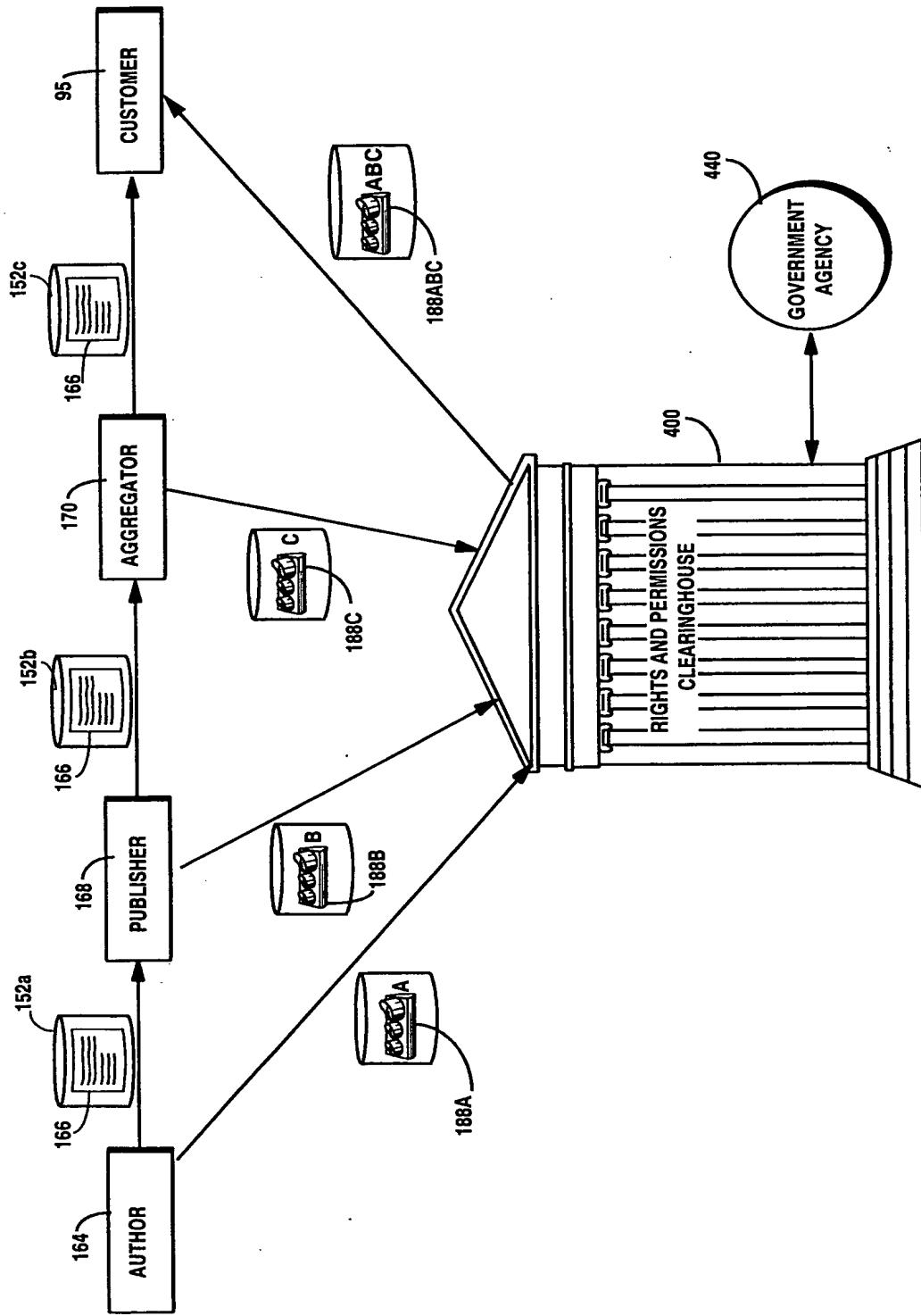
**FIG. 42** Example Rights & Permissions Clearinghouse Process

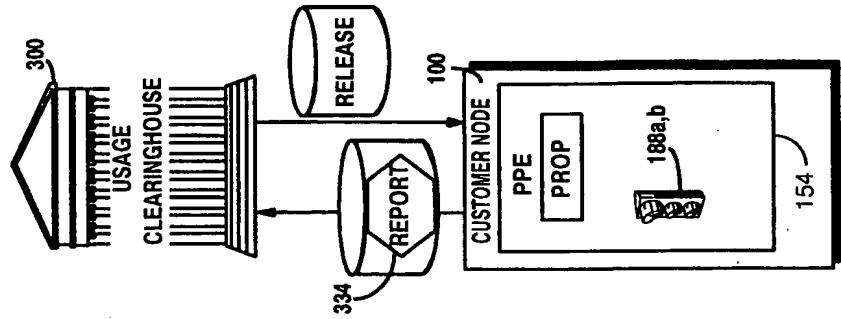




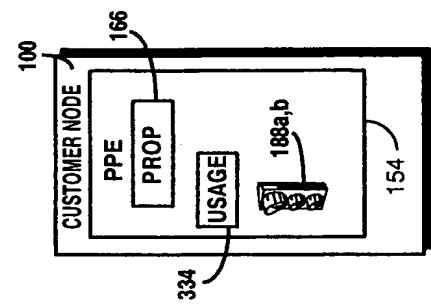
**FIG. 42A**  
Consumer Registers Control Set  
To Request Updates

**FIG. 43 EXAMPLE RIGHTS AND PERMISSIONS VALUE CHAIN**

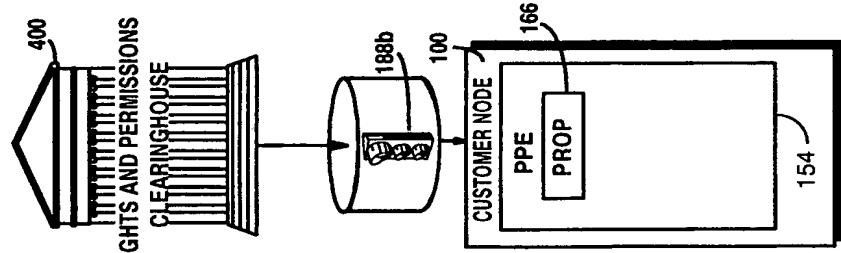




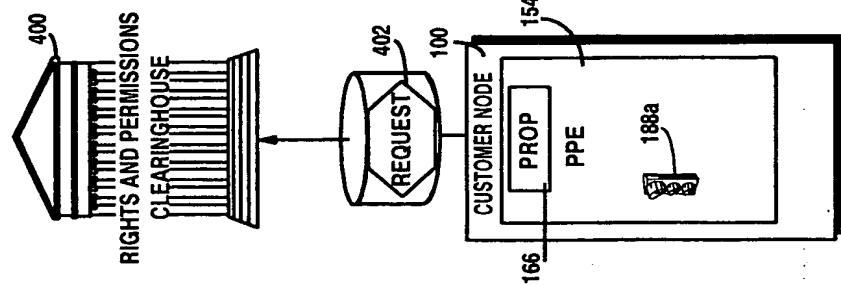
**FIG. 44E**  
Customer  
Node Reports  
Aspects Of  
Usage



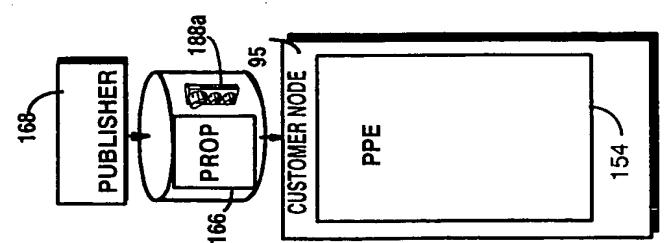
**FIG. 44D**  
Customer  
Uses Property  
In Accordance  
With Rights



**FIG. 44C**  
Rights and  
Permissions  
Clearinghouse  
Provides Rights  
To Customer



**FIG. 44B**  
Customer  
Requests Rights  
To Use Property

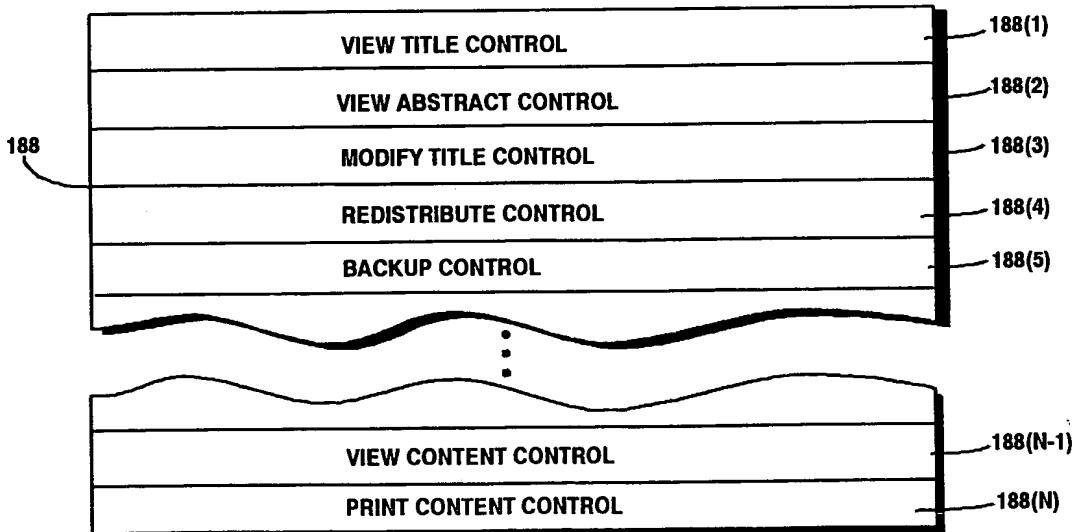


**FIG. 44A**  
Customer  
Receives  
Property

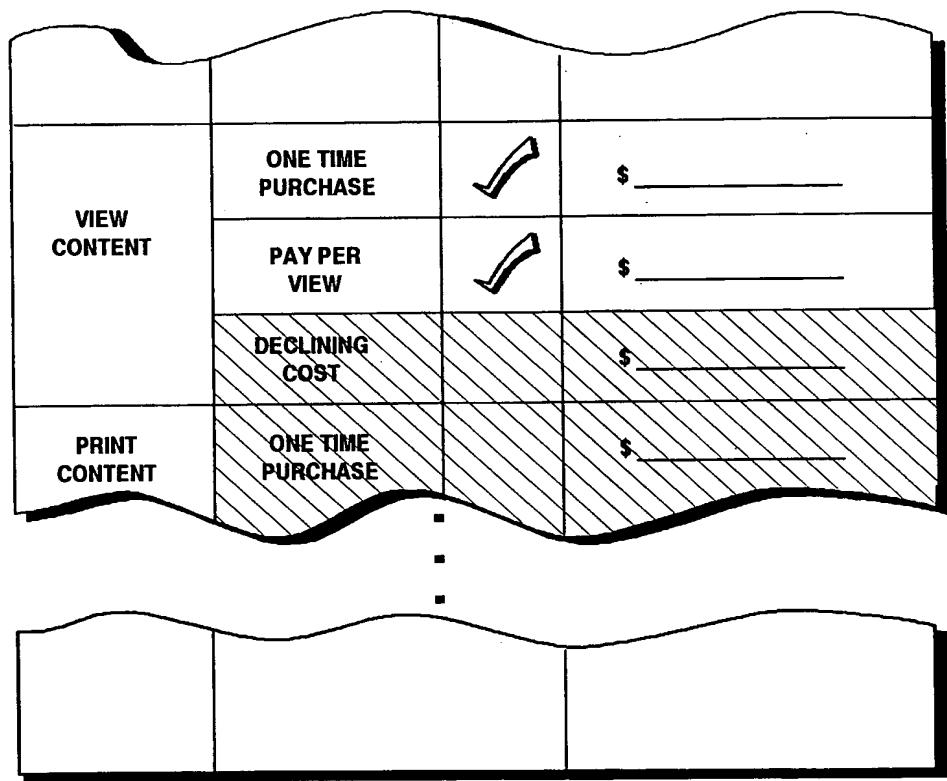
**PERMISSION TYPE**

ACTION	UNCOND. PERMIT	COND. ON PAYMENT	CONTENT BASED	UNCOND. PROHIBIT	PRICING MODELS		
VIEW TITLE	✓						
VIEW ABSTRACT	✓						
MODIFY TITLE				✓	...	...	...
REDIS-TRIBUTE			✓				
BACK UP		✓			ONE TIME PURCH.	PAY PER ACTION	DECL. COST
							...
VIEW CONTENT		✓			ONE TIME PURCH.	PAY PER VIEW	DECL. COST
PRINT CONTENT		✓			ONE TIME PURCH.	PAY PER PRINT	DECL. COST

## **FIG. 45A** EXAMPLE RIGHTS TEMPLATE

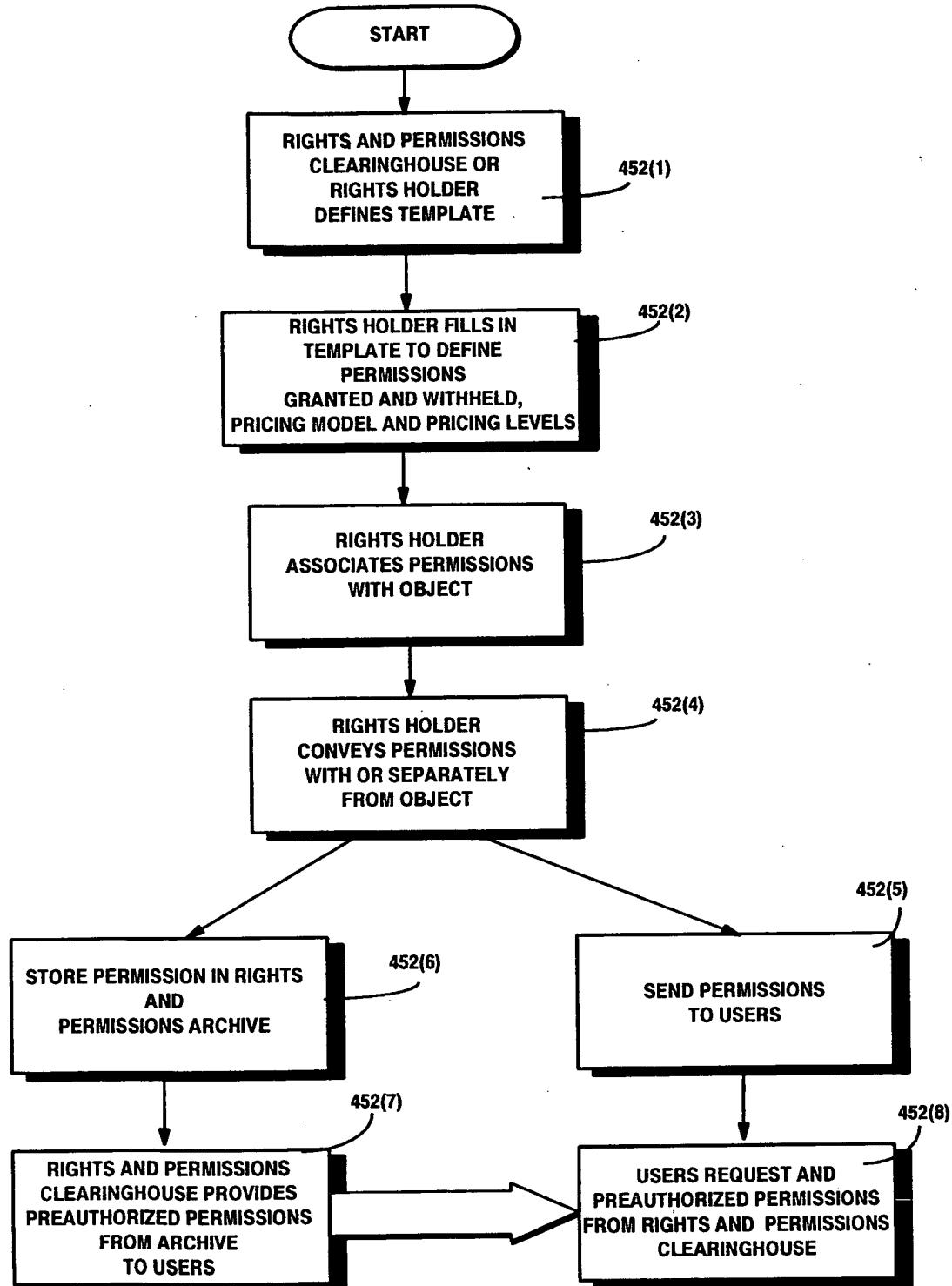


**FIG. 45C** EXAMPLE CONTROL SET

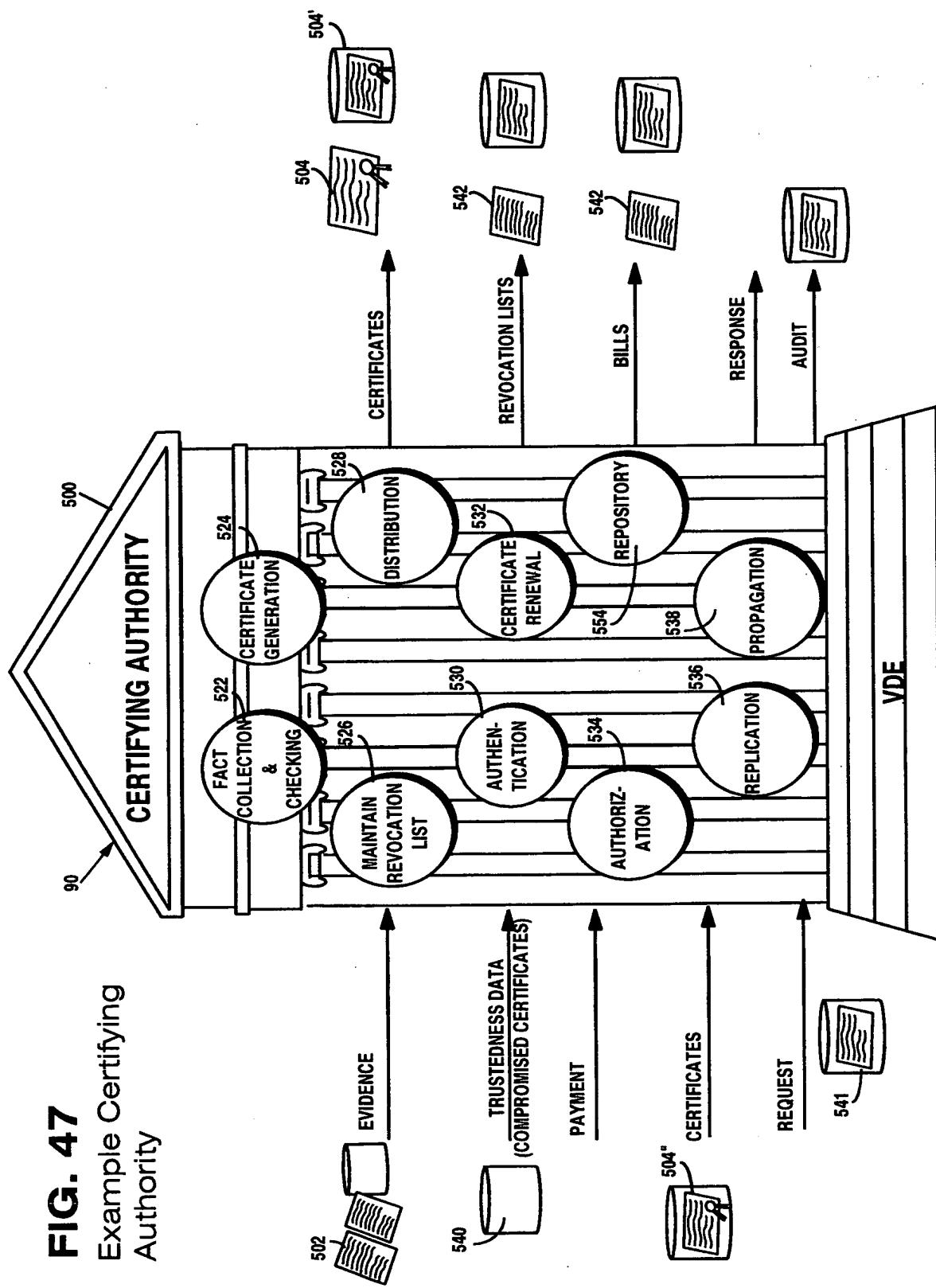


**FIG. 45B** PRICING MODELS AND LEVELS

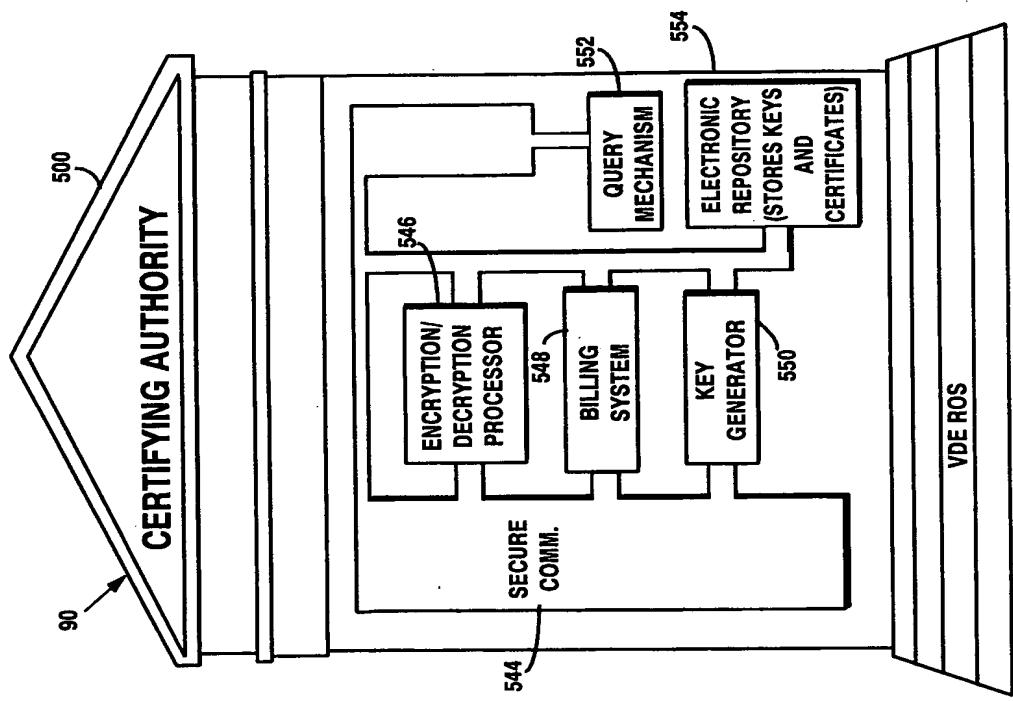
**FIG. 46** Example Rights And Permissions Clearing Process



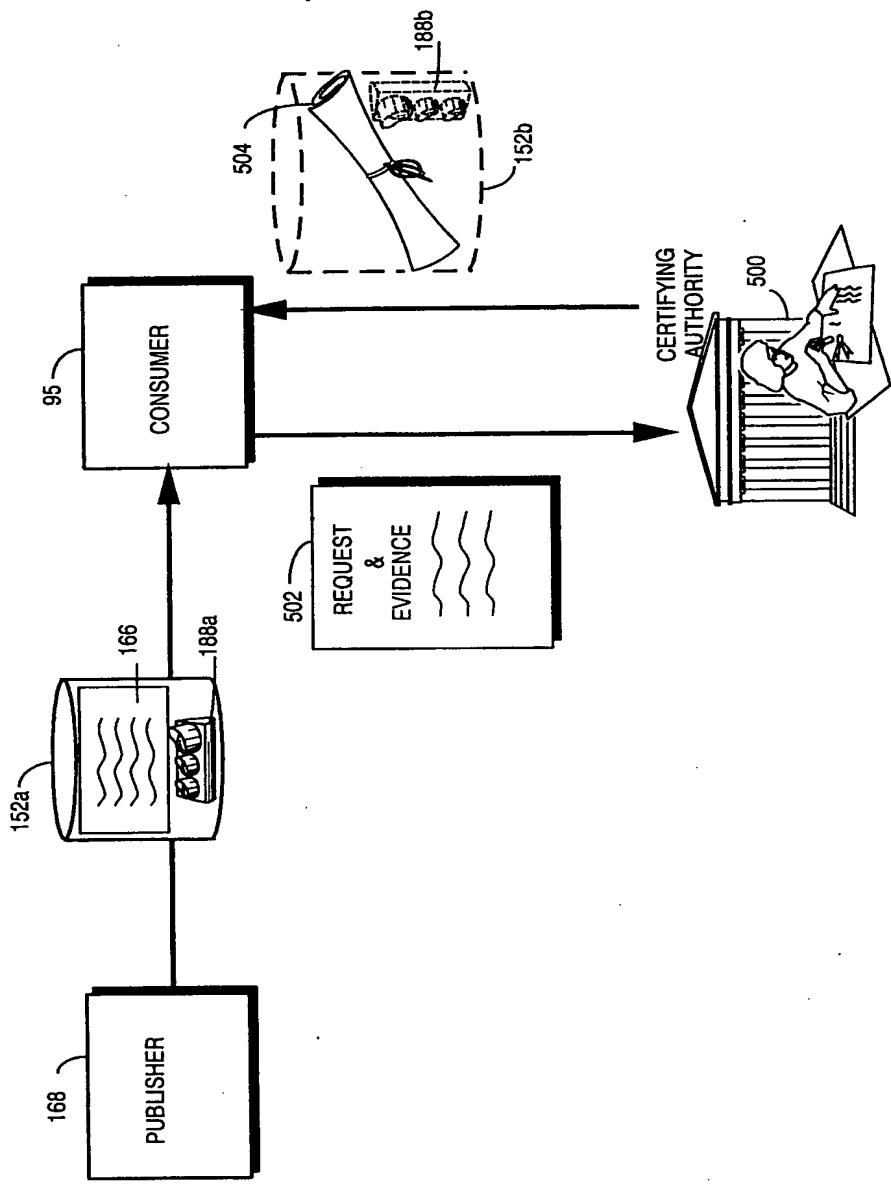
**FIG. 47**  
Example Certifying Authority  
Authority

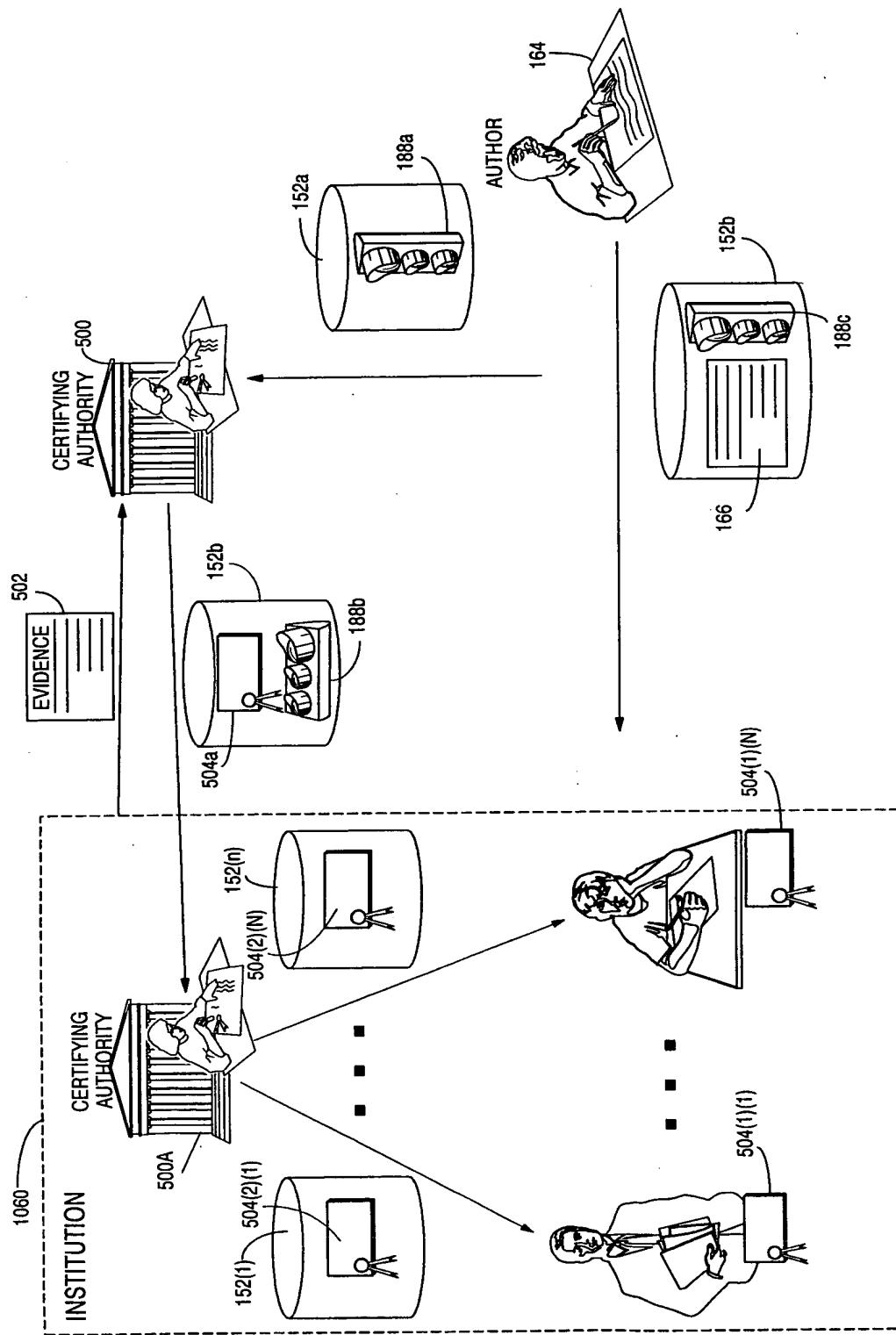


**FIG. 48**  
Example Certifying  
Authority



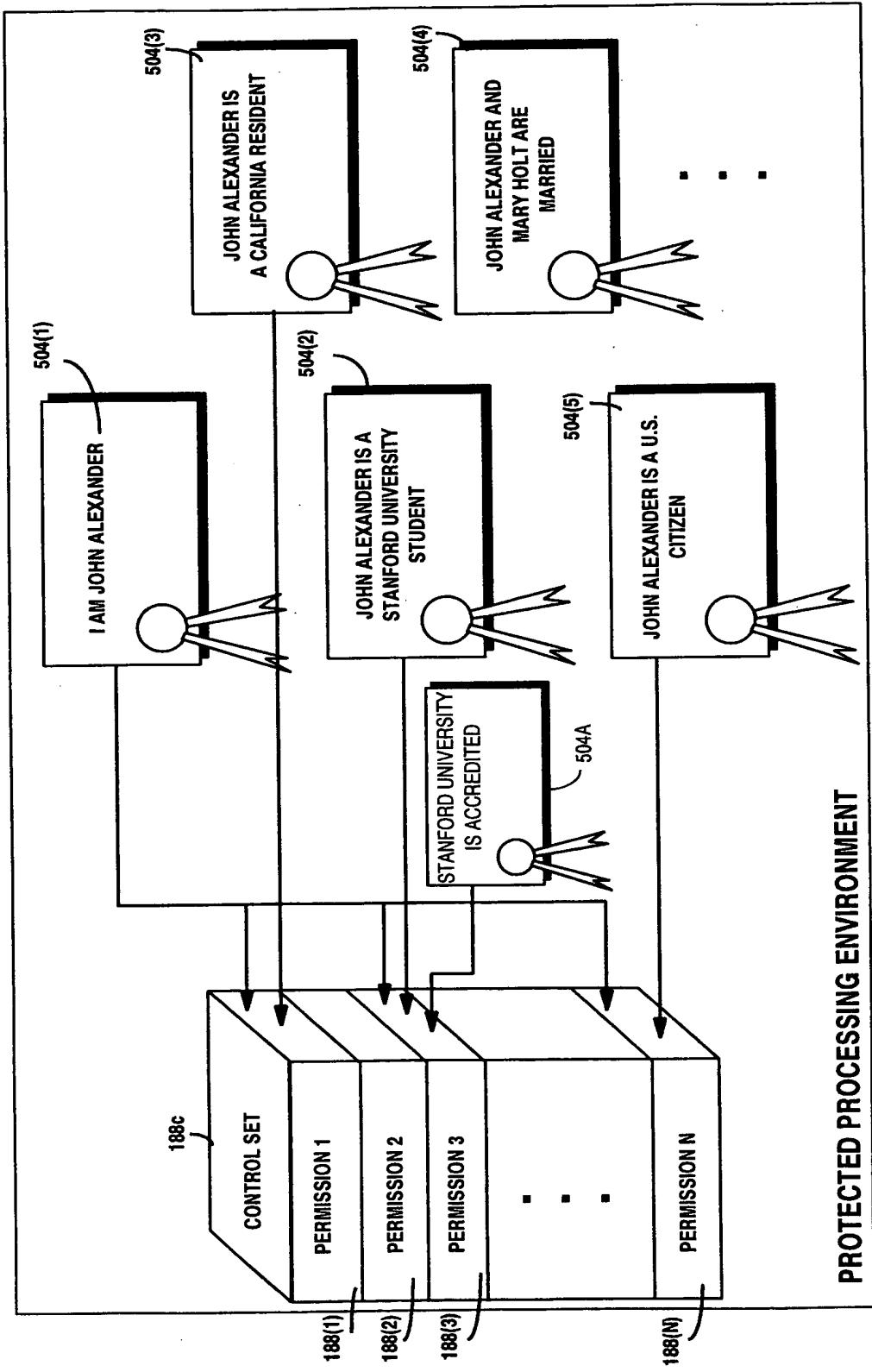
**FIG. 49** Example Certifying Process





**FIG. 50** Distributed Certificate Issuance

**FIG. 50A** Example Control Set Using Certificates



504(1)	NAME	504(2)	504(3)	504(4)	504(5)	504(6)
		DOB	...	EXP. DATE OF PQ	ID HASH OF PQ	PUBLIC KEY

**FIG. 51A**

504(7)	PROFESSIONAL CREDENTIAL	504(8)	504(9)	504(10)	504(11)	504(12)
		STREET ADDRESS	CITY	STATE/ PROVENCE	COUNTRY	...

**FIG. 51B**

504(13)	STUDENT CREDENTIAL	504(14)	504(15)	504(16)	504(17)	504(18)
		UNIVERSITY	STUDENT ID	EXP. DATE	...	ID CHECK SUM

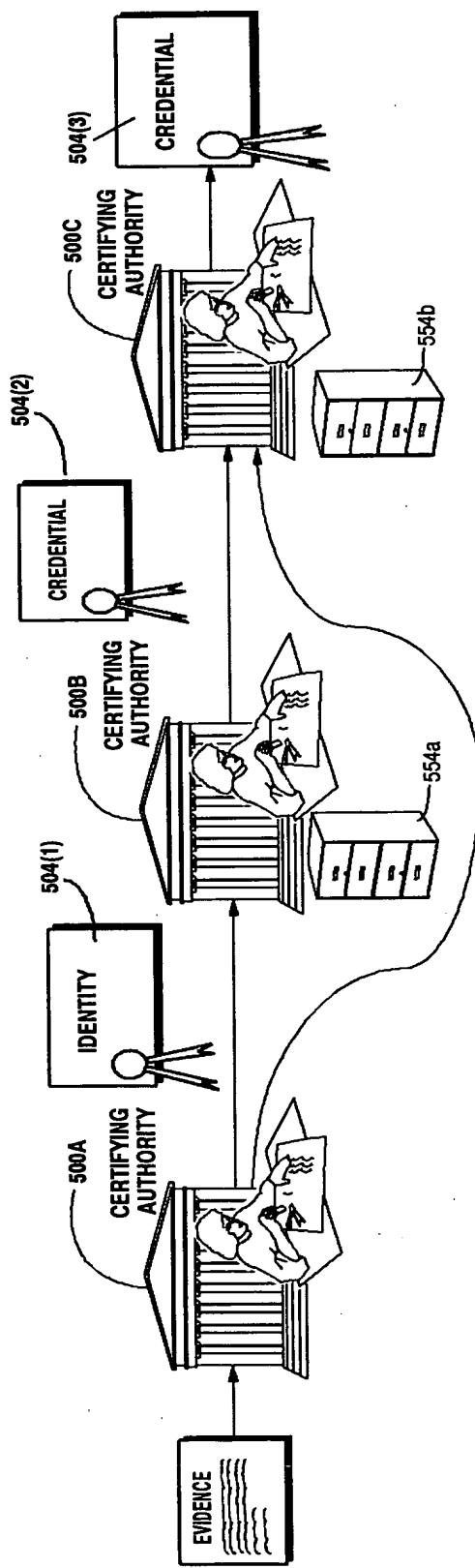
**FIG. 51C**

504(19)	STUDENT CREDENTIAL	504(20)	504(21)	504(22)	504(23)	504(24)
		UNIVERSITY	STUDENT ID	EXP. DATE	...	ID CHECK SUM

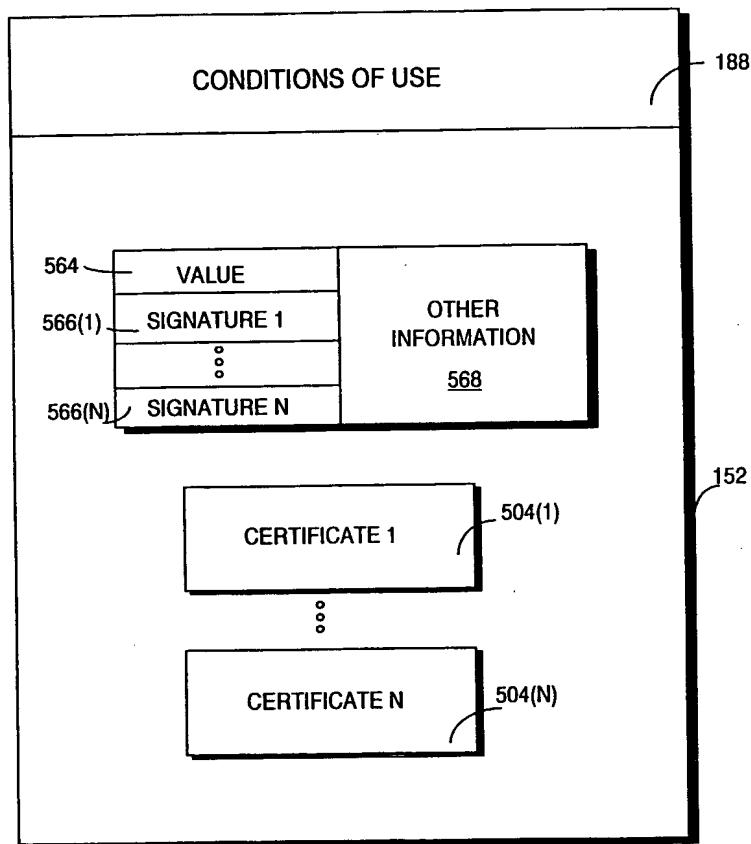
**FIG. 51D**

Example Digital Certificates

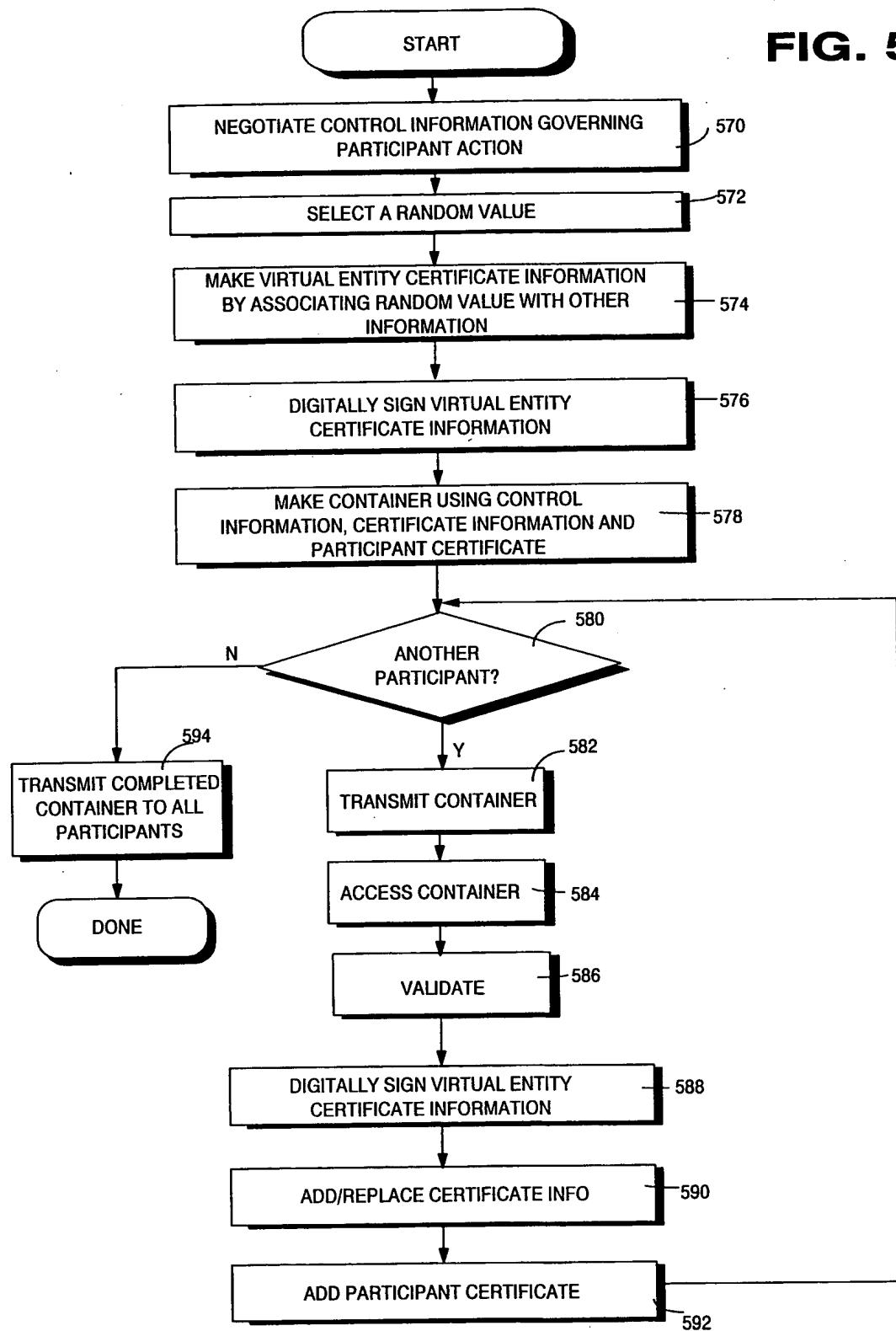
**FIG. 51E** Generating Certificates Based On Other Certificates



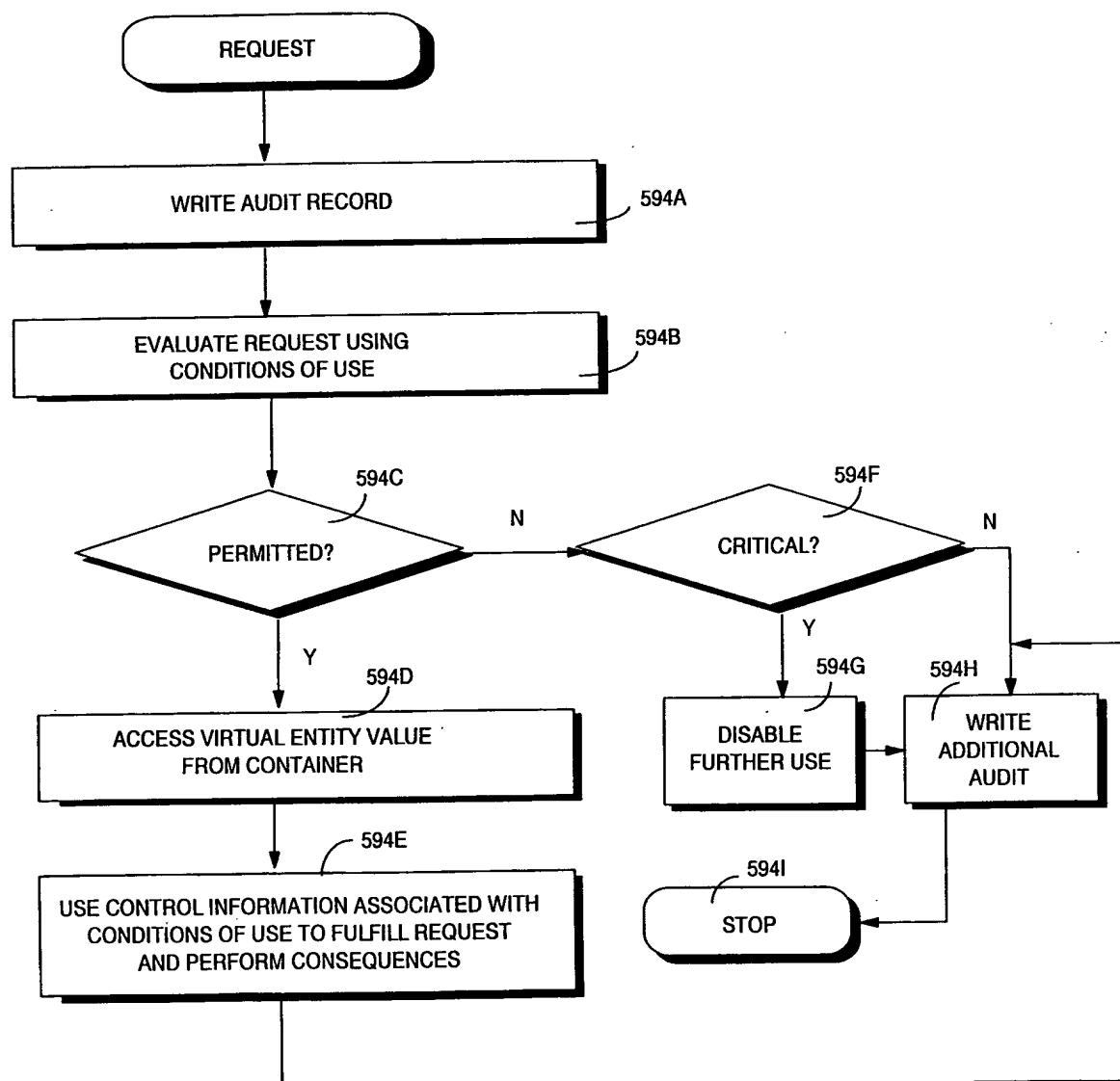
**FIG. 51F**



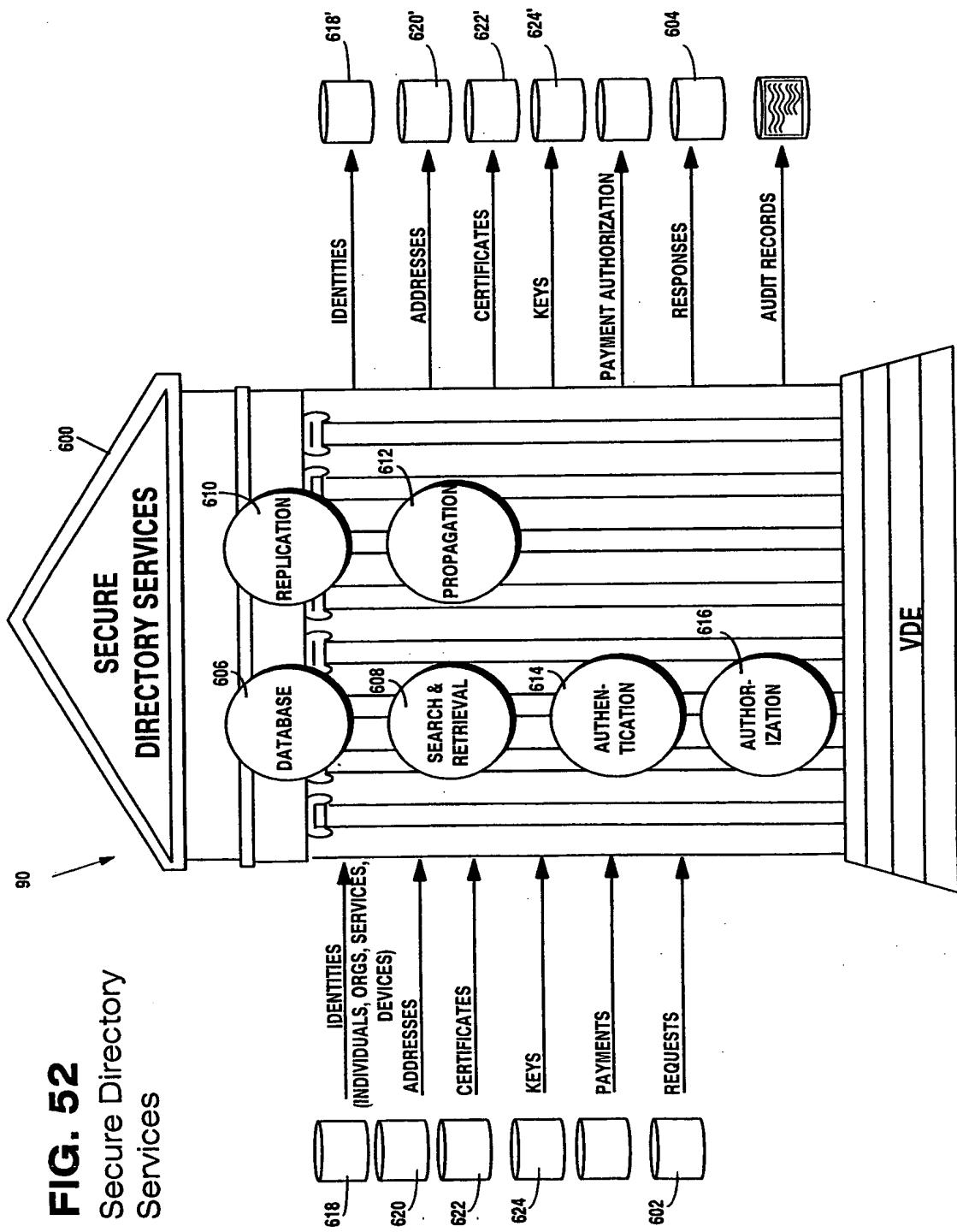
**FIG. 51G**

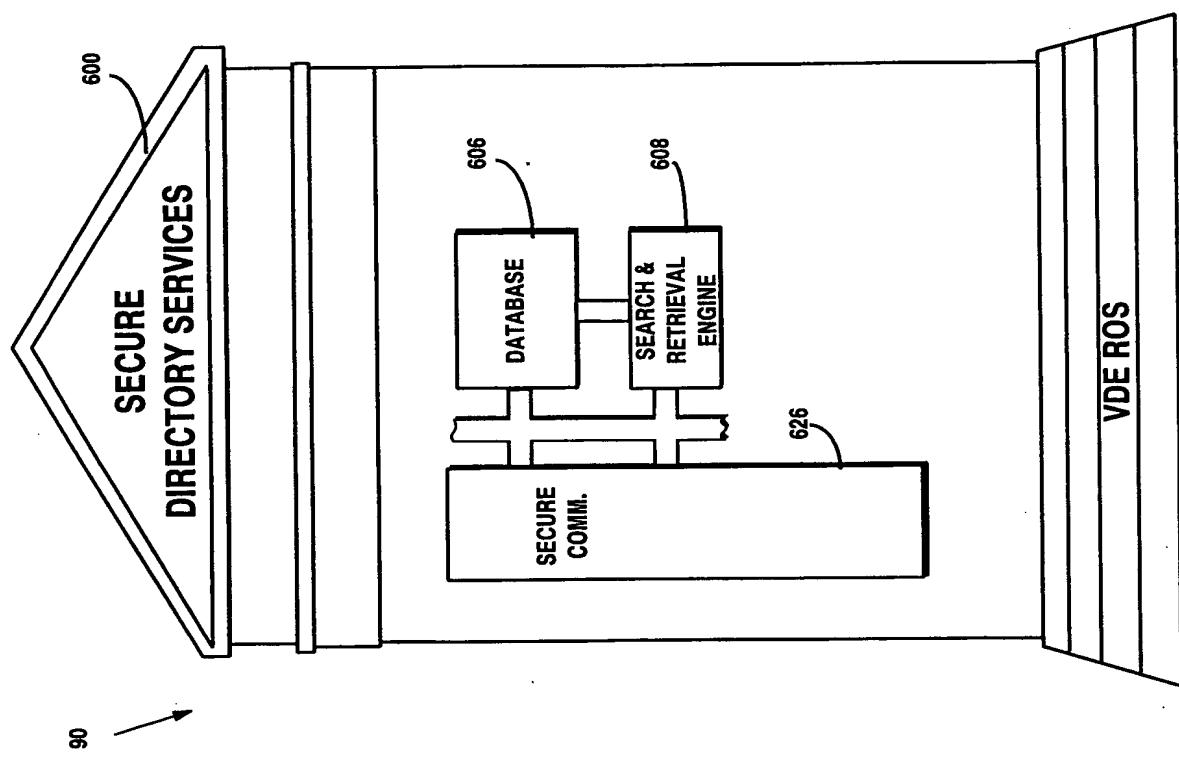


**FIG. 51H**



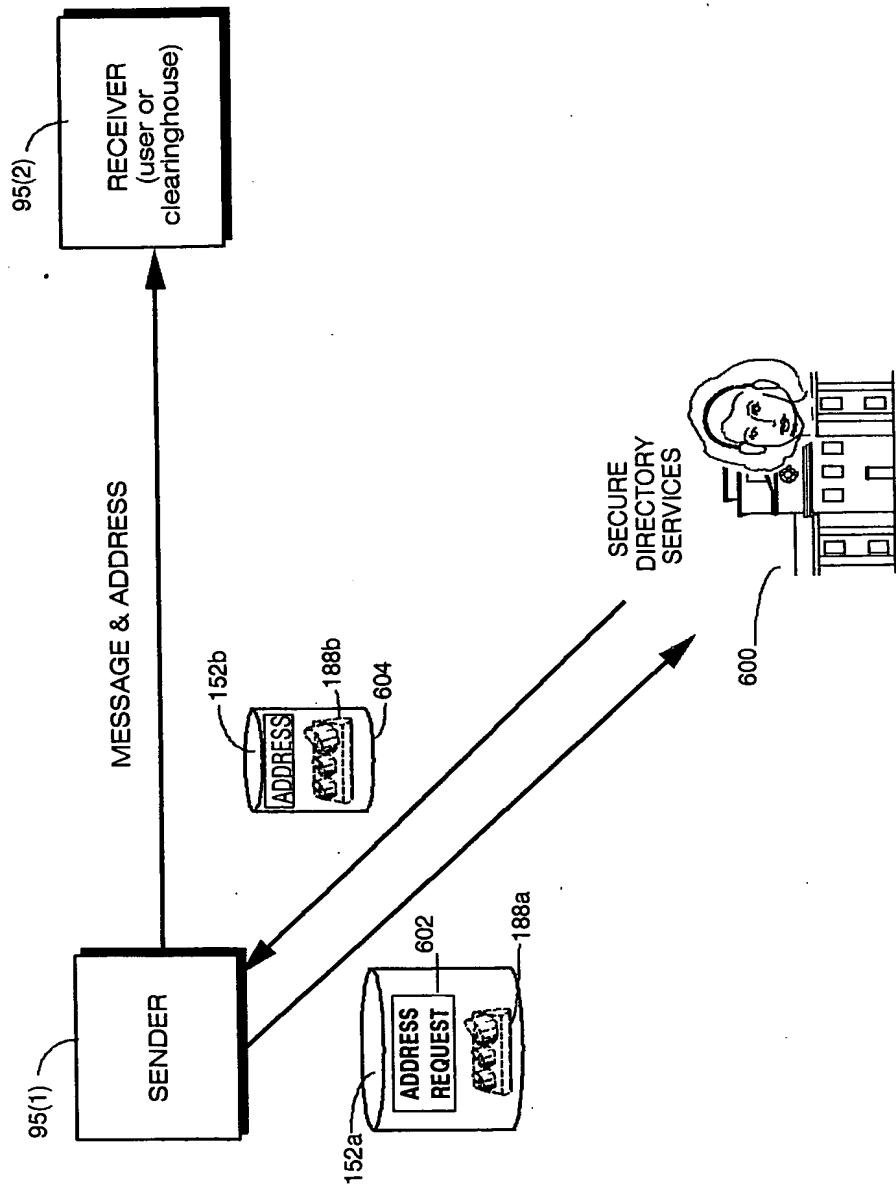
**FIG. 52**  
Secure Directory  
Services



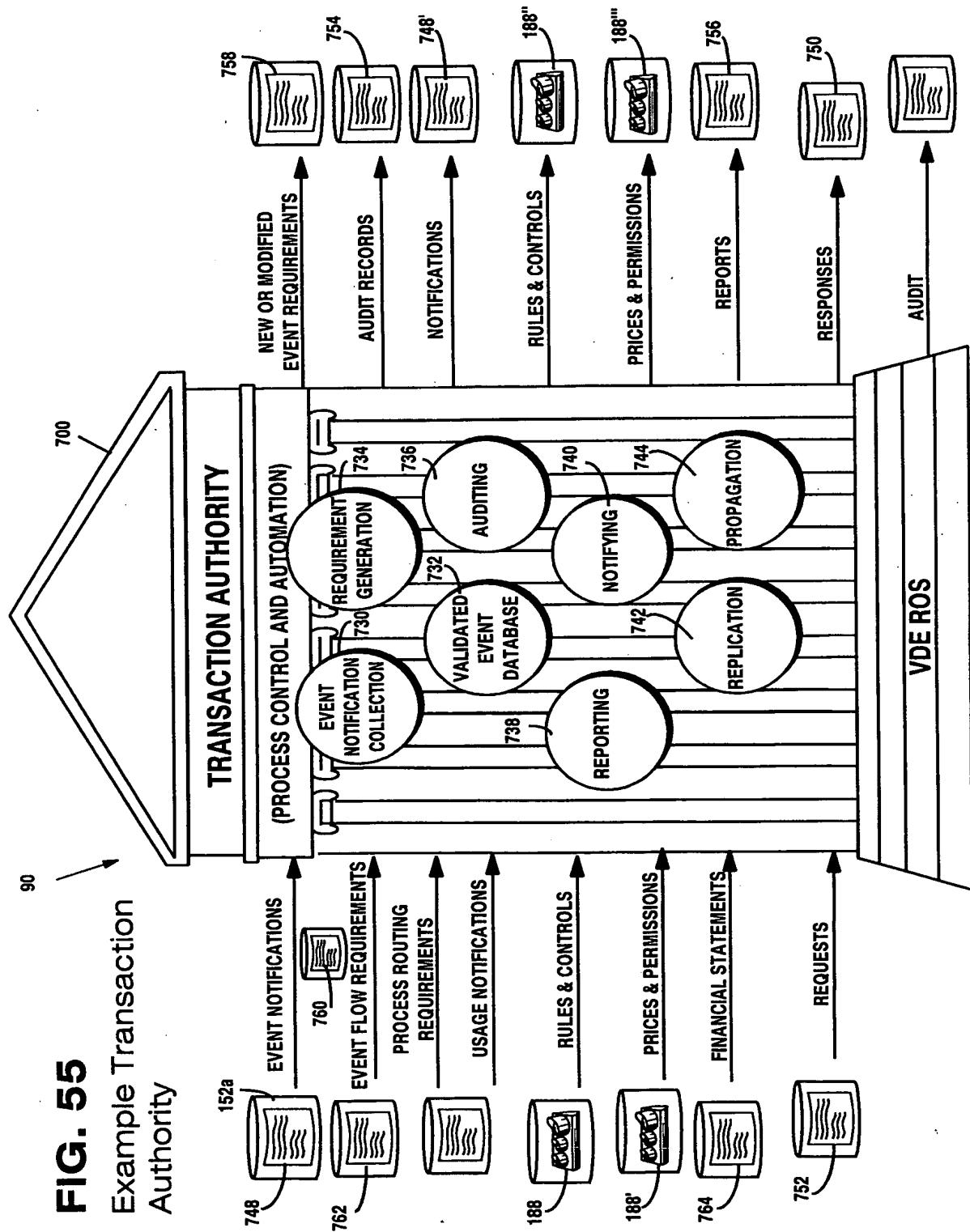


**FIG. 53**  
Example Secure  
Directory Services

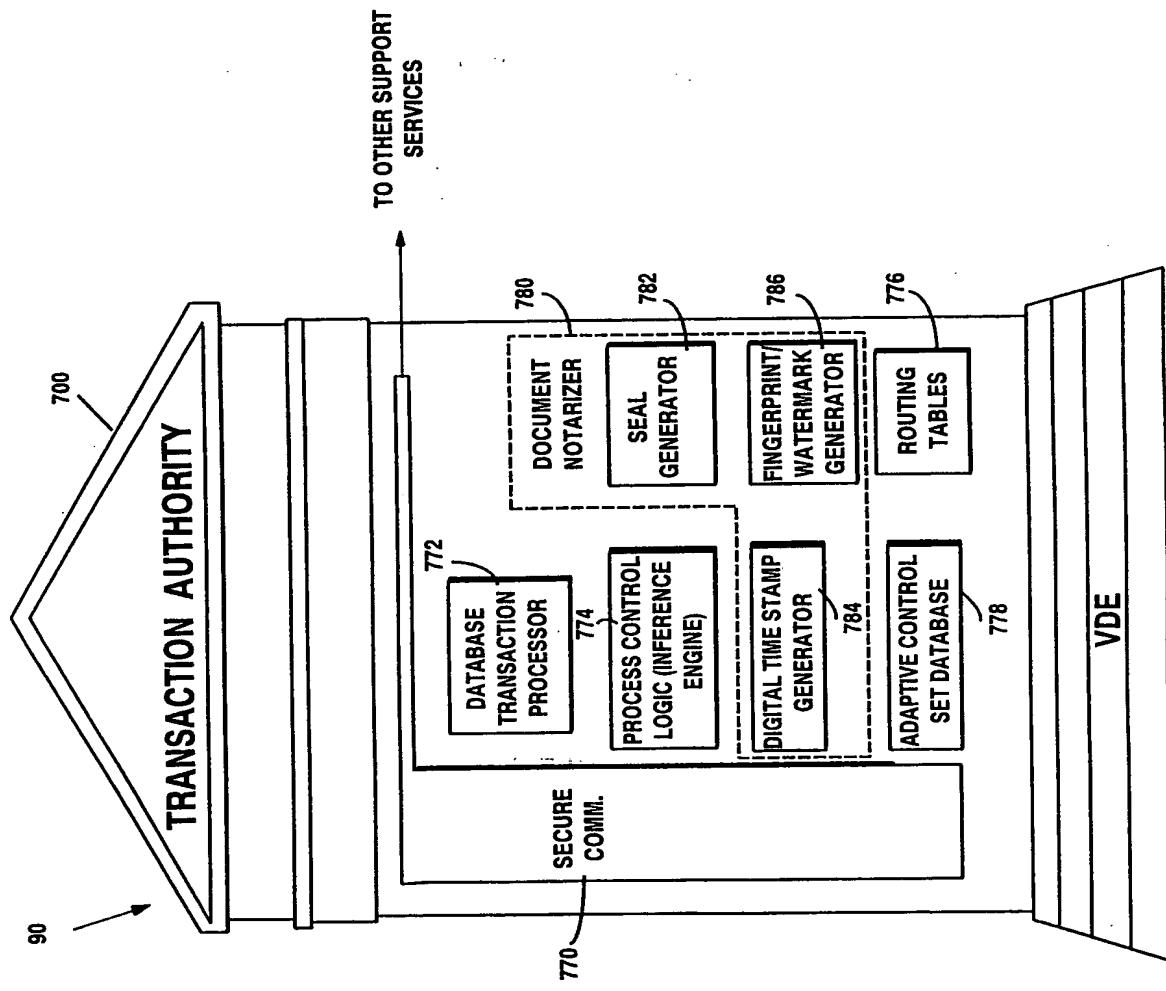
**FIG. 54** Example Secure Directory Service Process

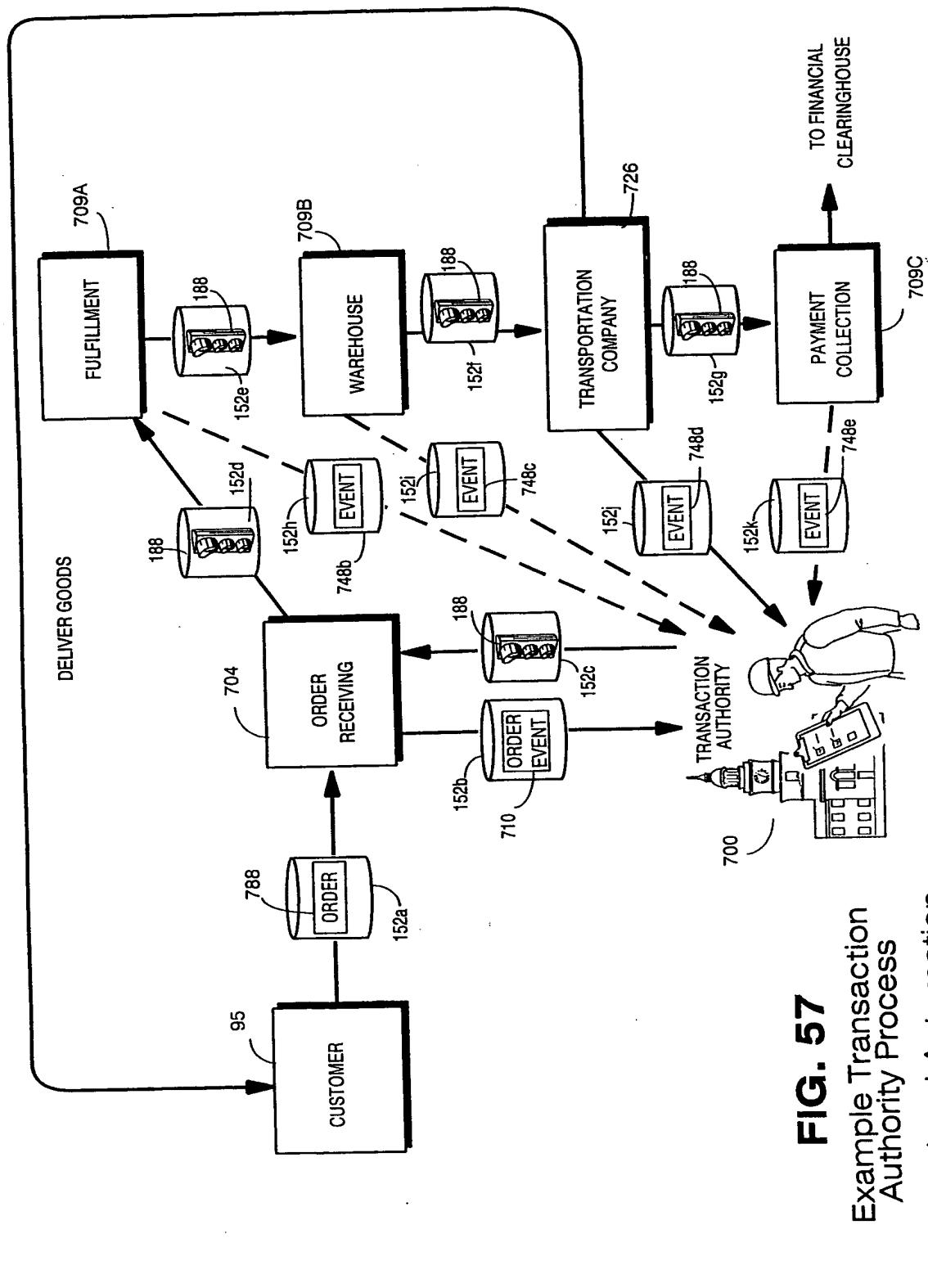


**FIG. 55**  
Example Transaction Authority



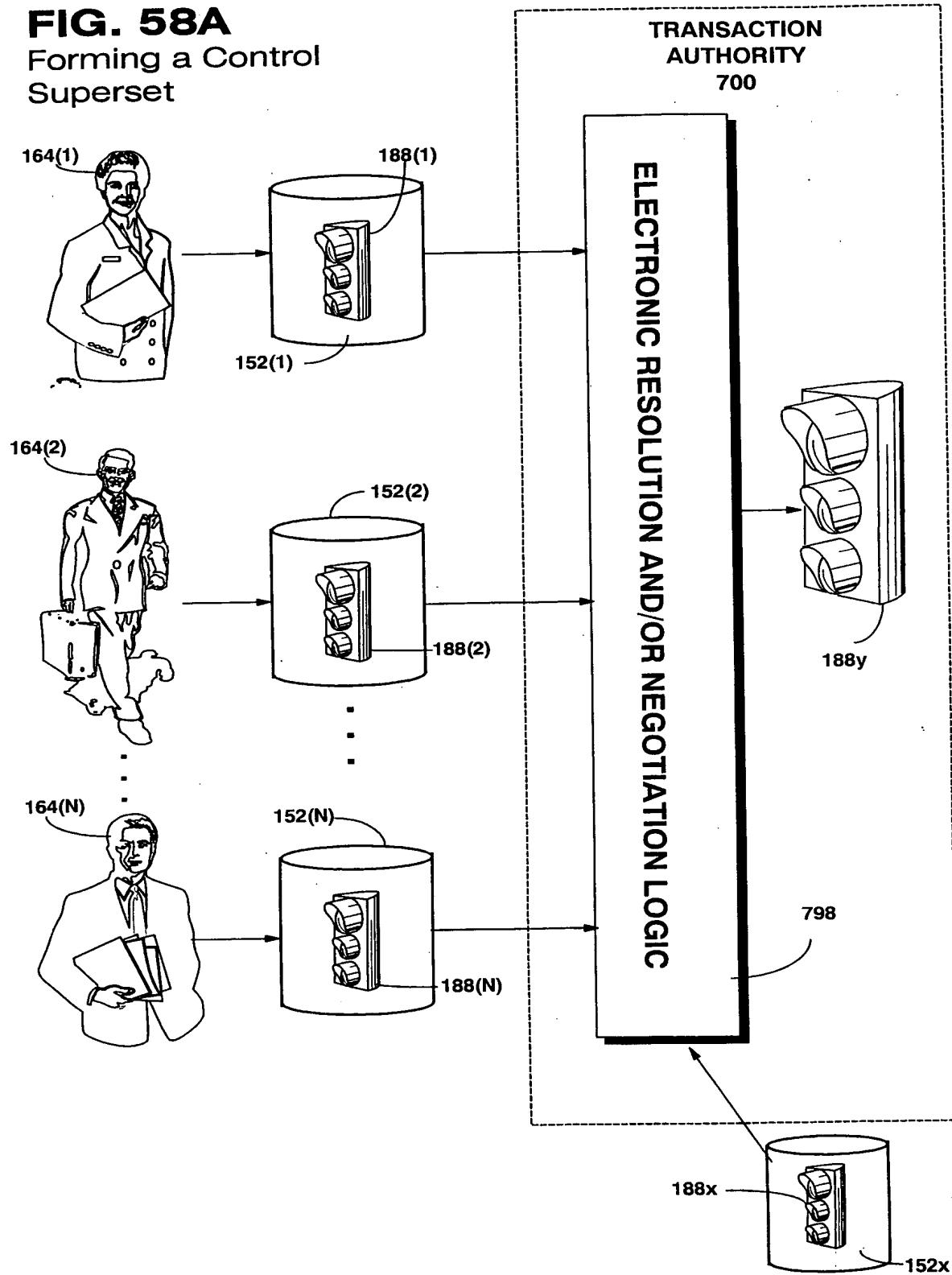
**FIG. 56**  
Example Transaction Authority



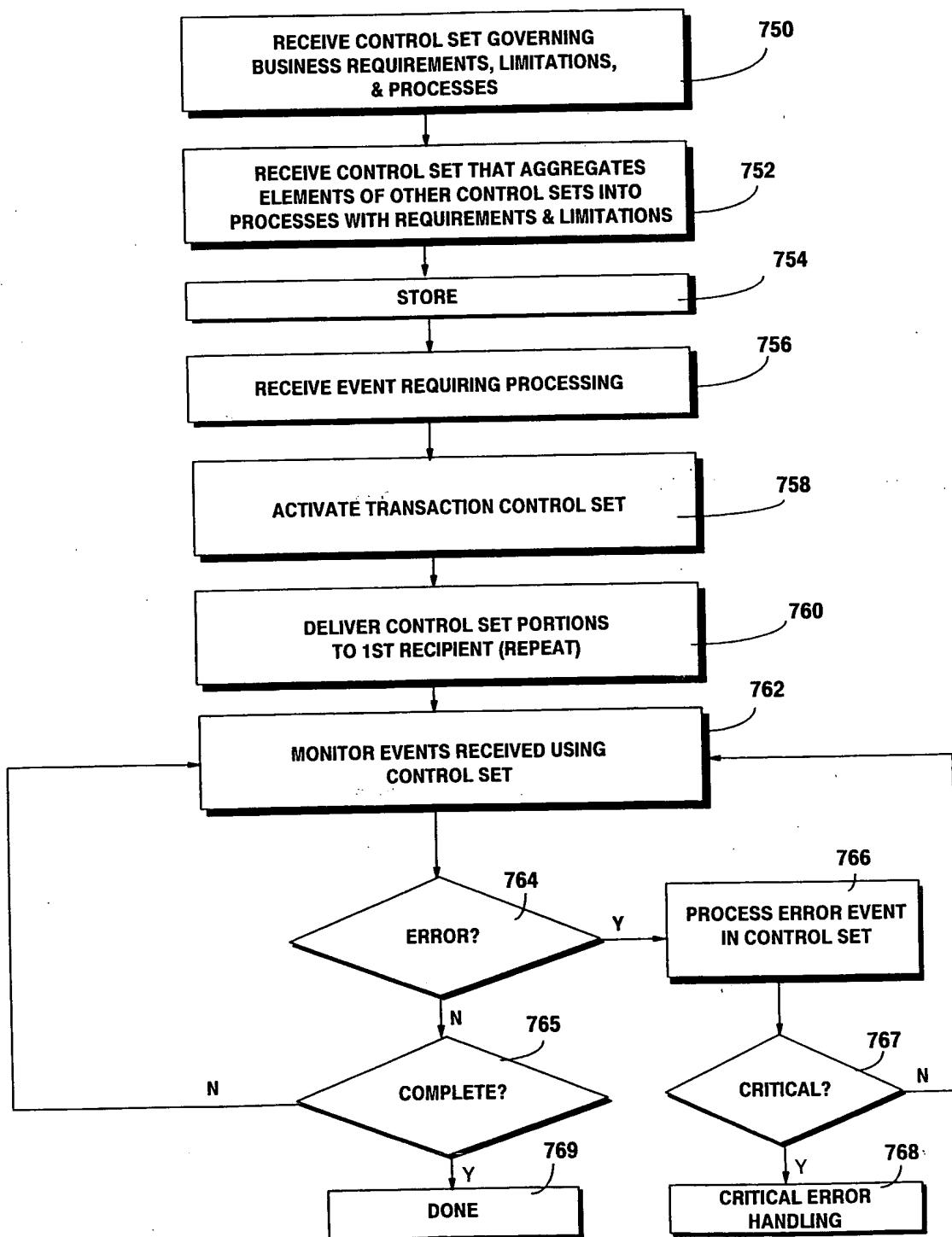


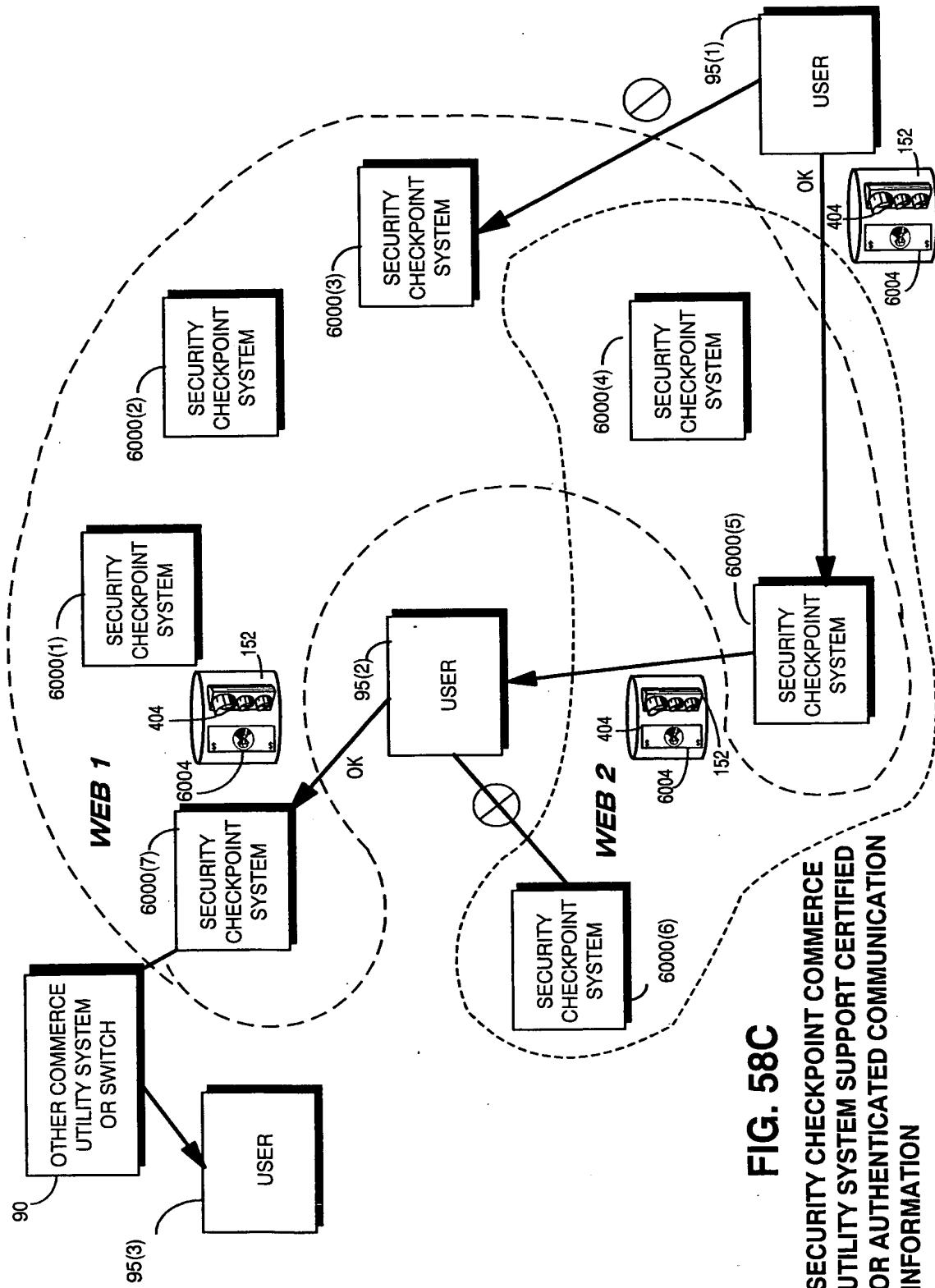
**FIG. 57**  
**Example Transaction Authority Process**  
**Control and Automation**

**FIG. 58A**  
Forming a Control  
Superset



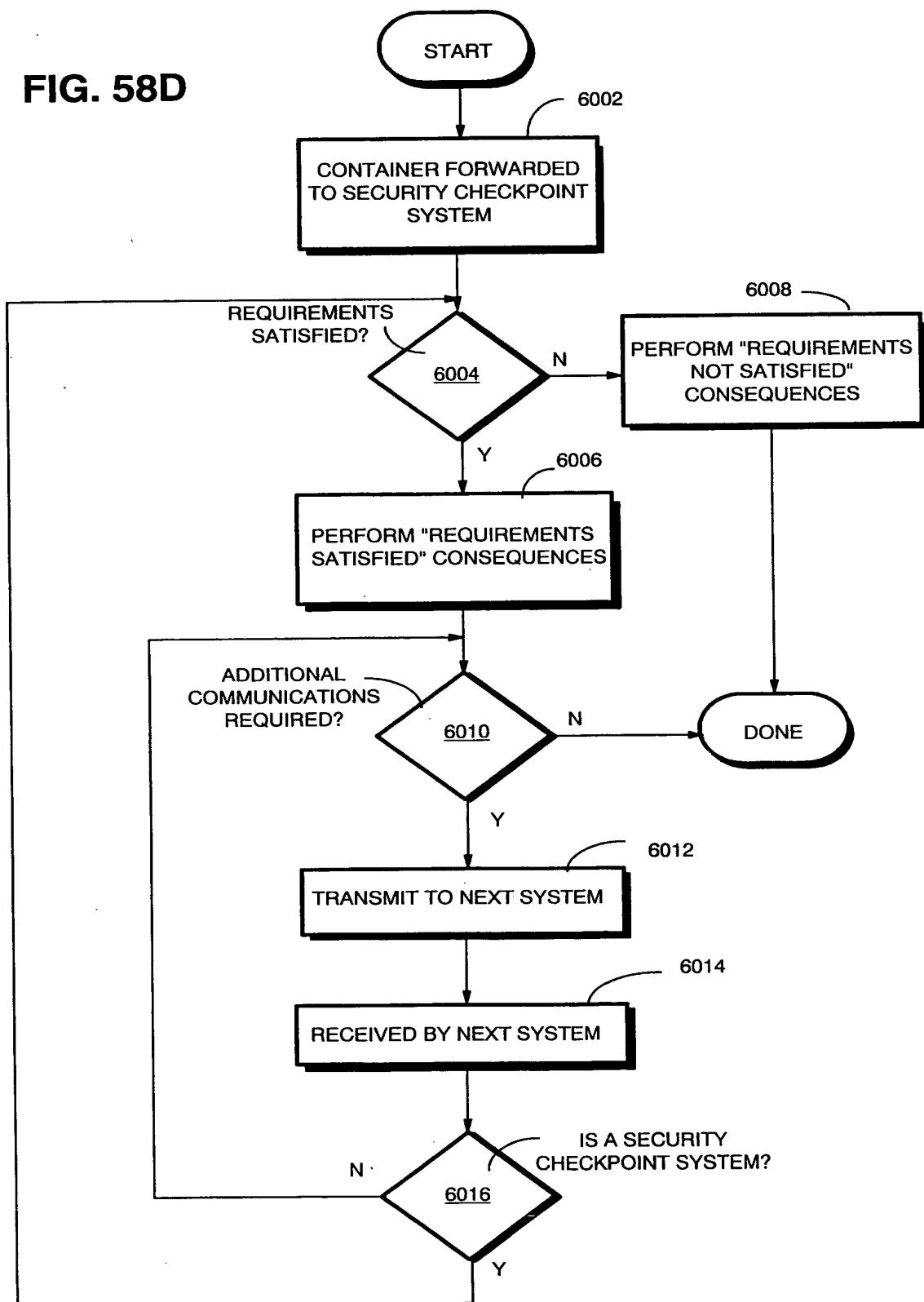
**FIG. 58B** Transaction Authority Example Steps

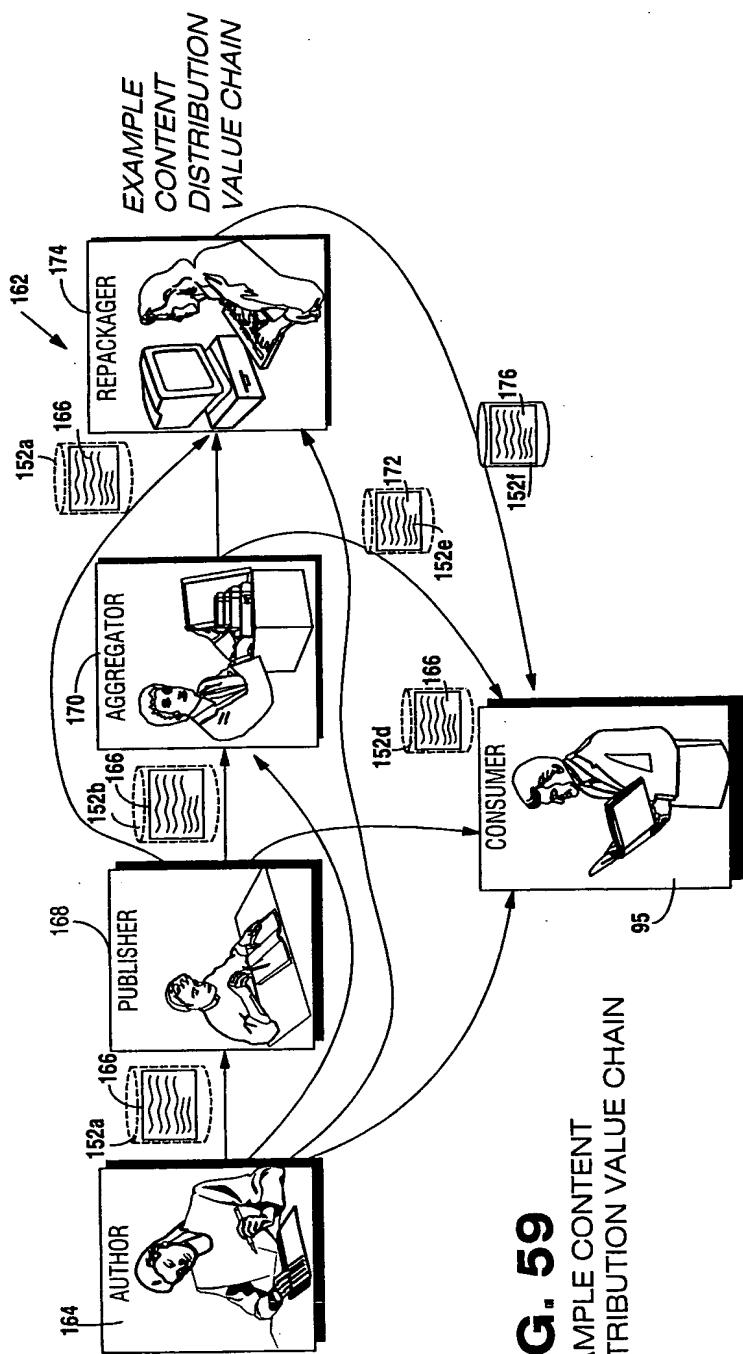




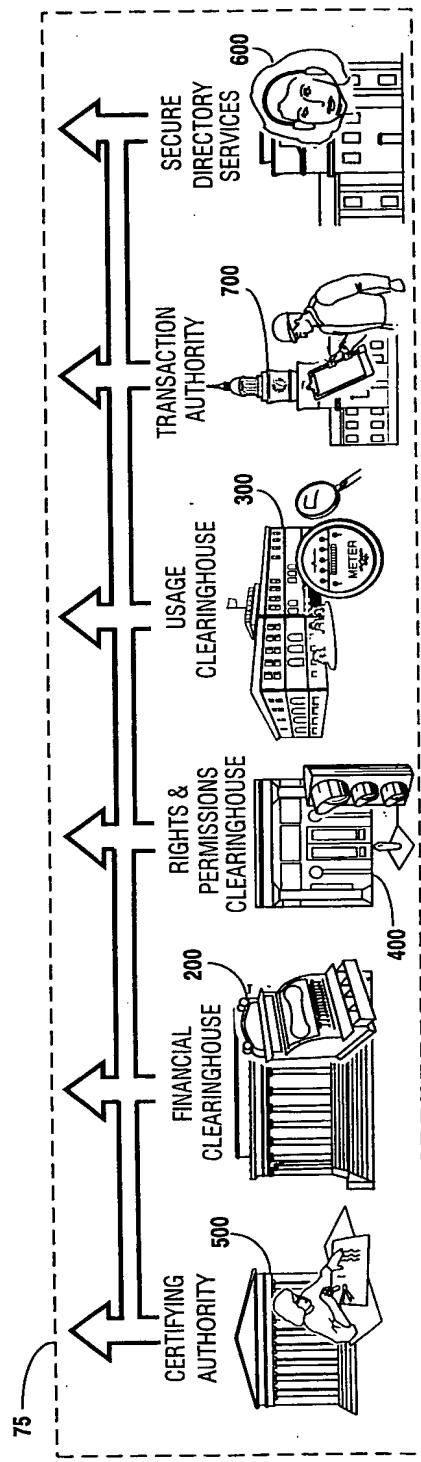
**FIG. 58C**  
**SECURITY CHECKPOINT COMMERCIAL SUPPORT CERTIFIED  
 UTILITY SYSTEM SUPPORT CERTIFIED  
 OR AUTHENTICATED COMMUNICATION  
 INFORMATION**

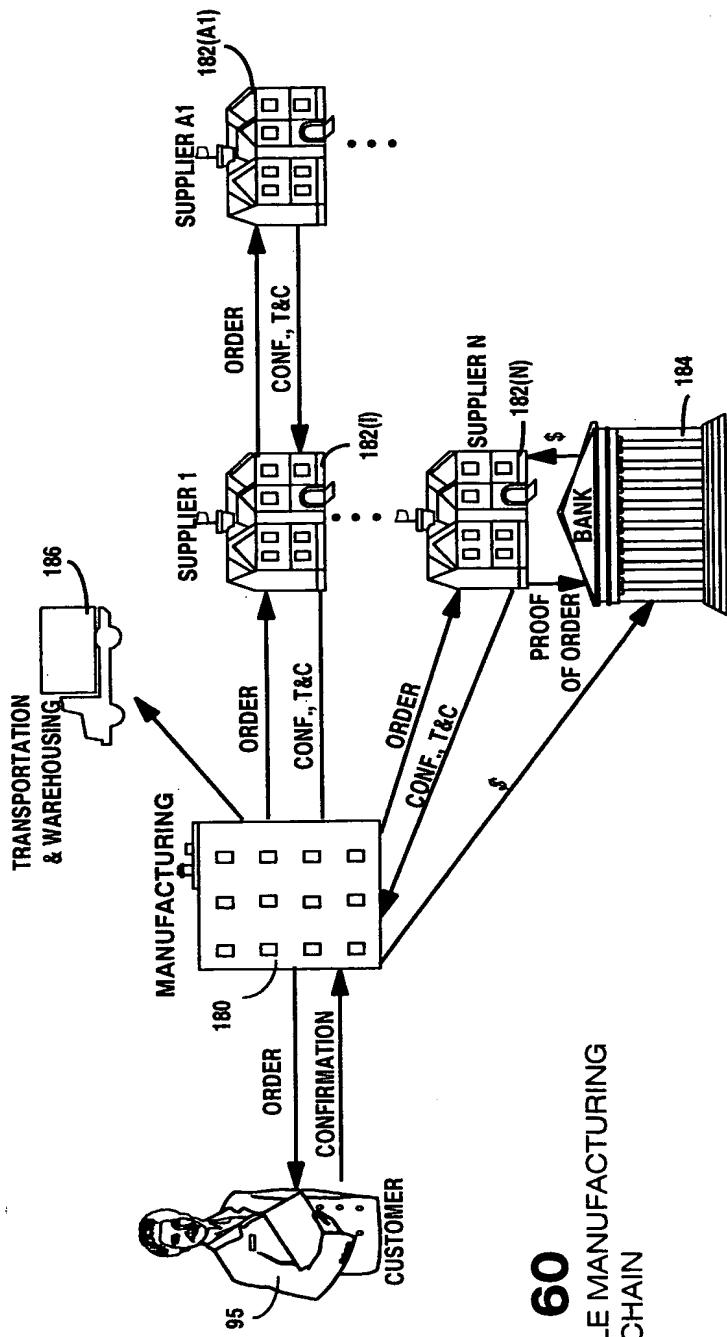
**FIG. 58D**



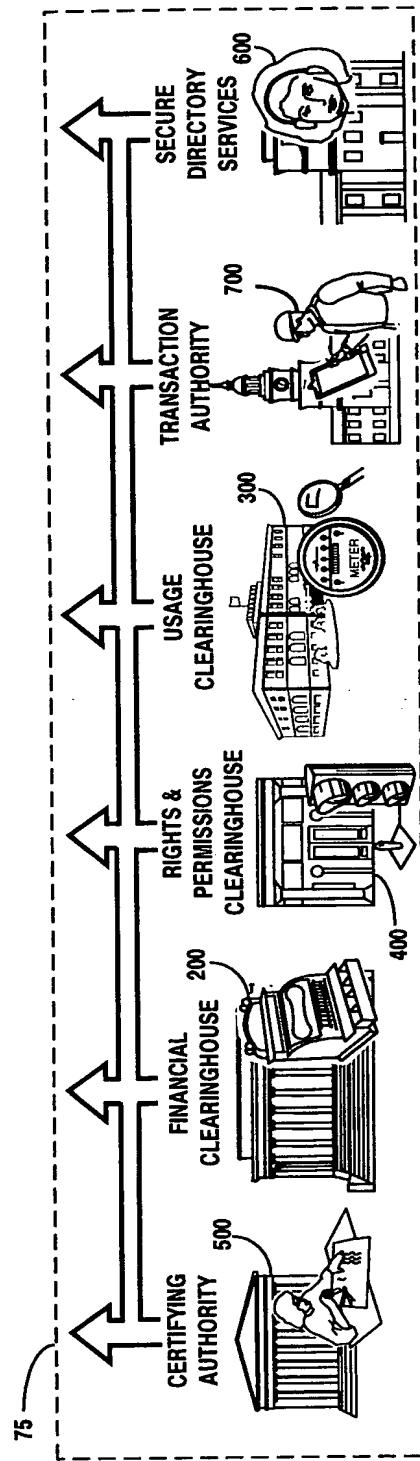


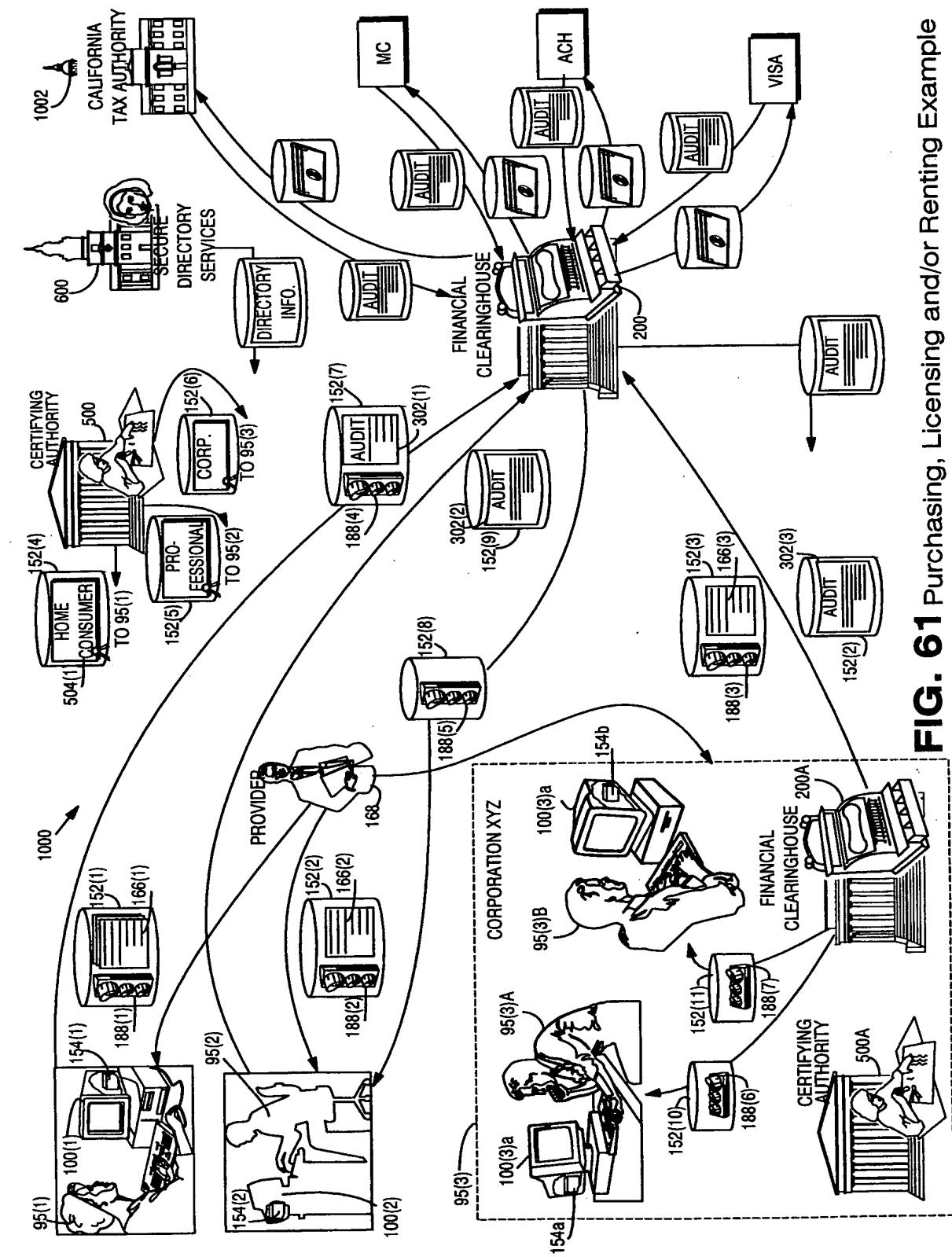
**FIG. 59** EXAMPLE CONTENT DISTRIBUTION VALUE CHAIN





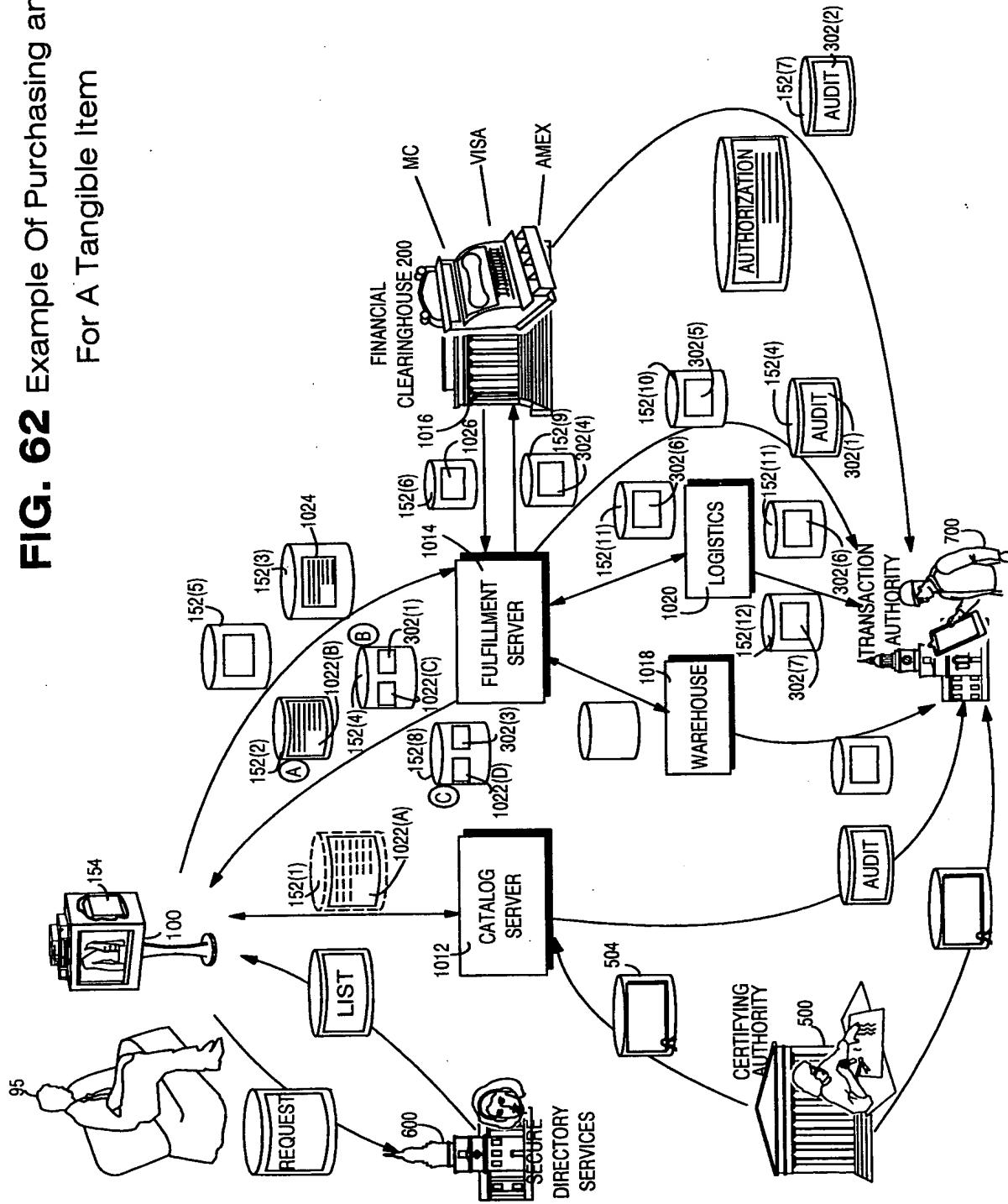
# FIG. 60 EXAMPLE MANUFACTURING VALUE CHAIN



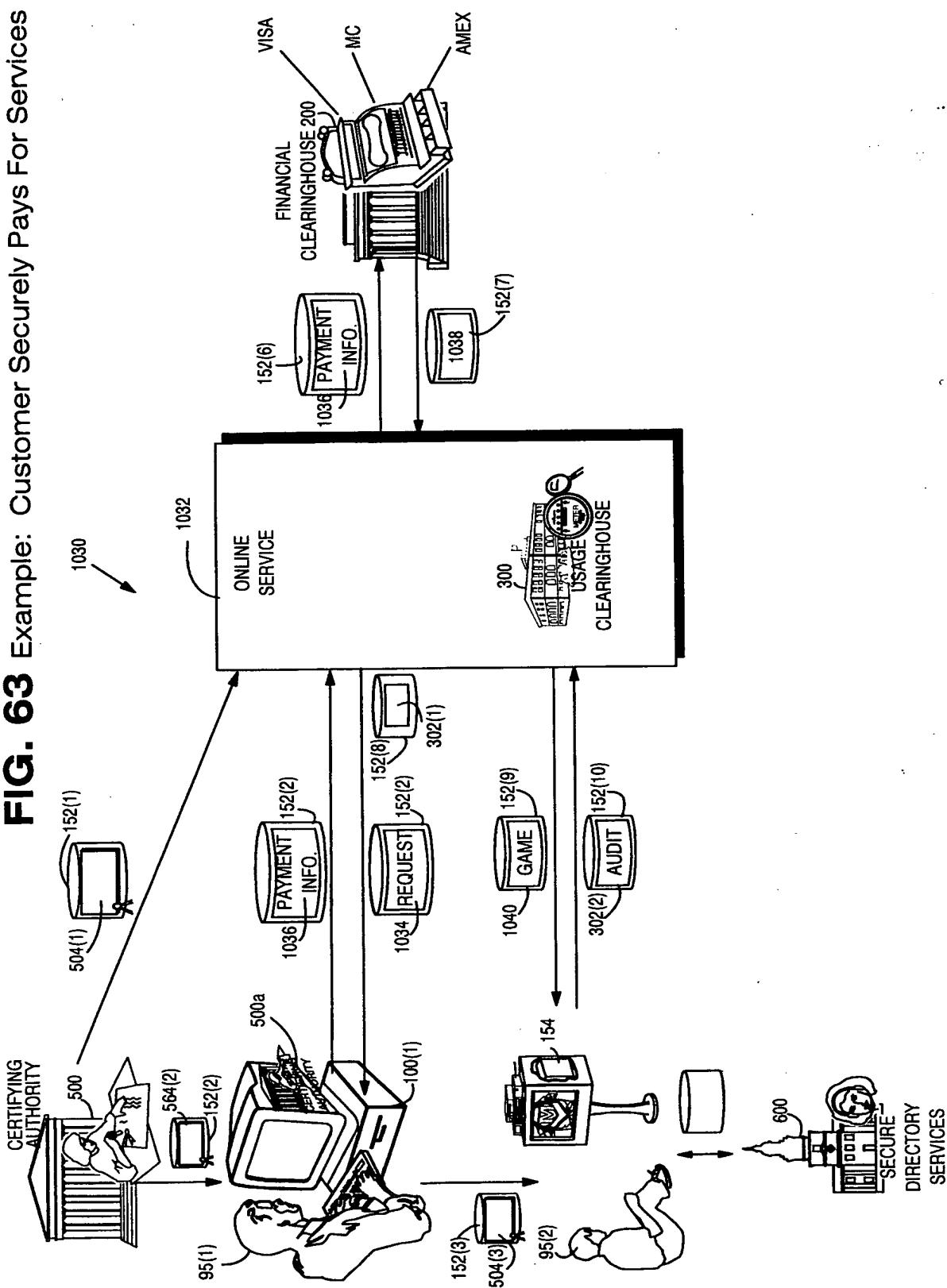


**FIG. 6.1** Purchasing, Licensing and/or Renting Example

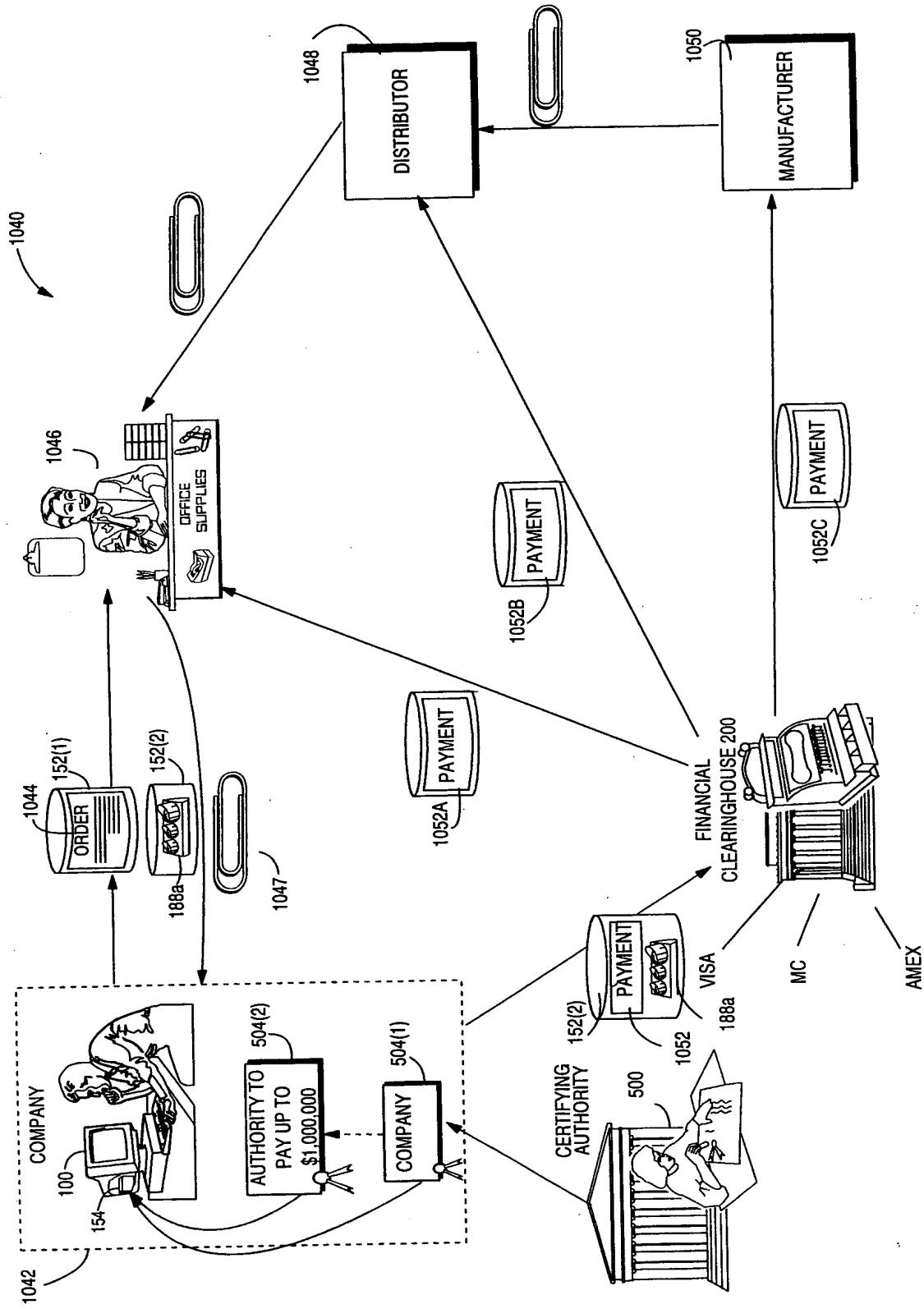
**FIG. 62** Example Of Purchasing and Paying For A Tangible Item

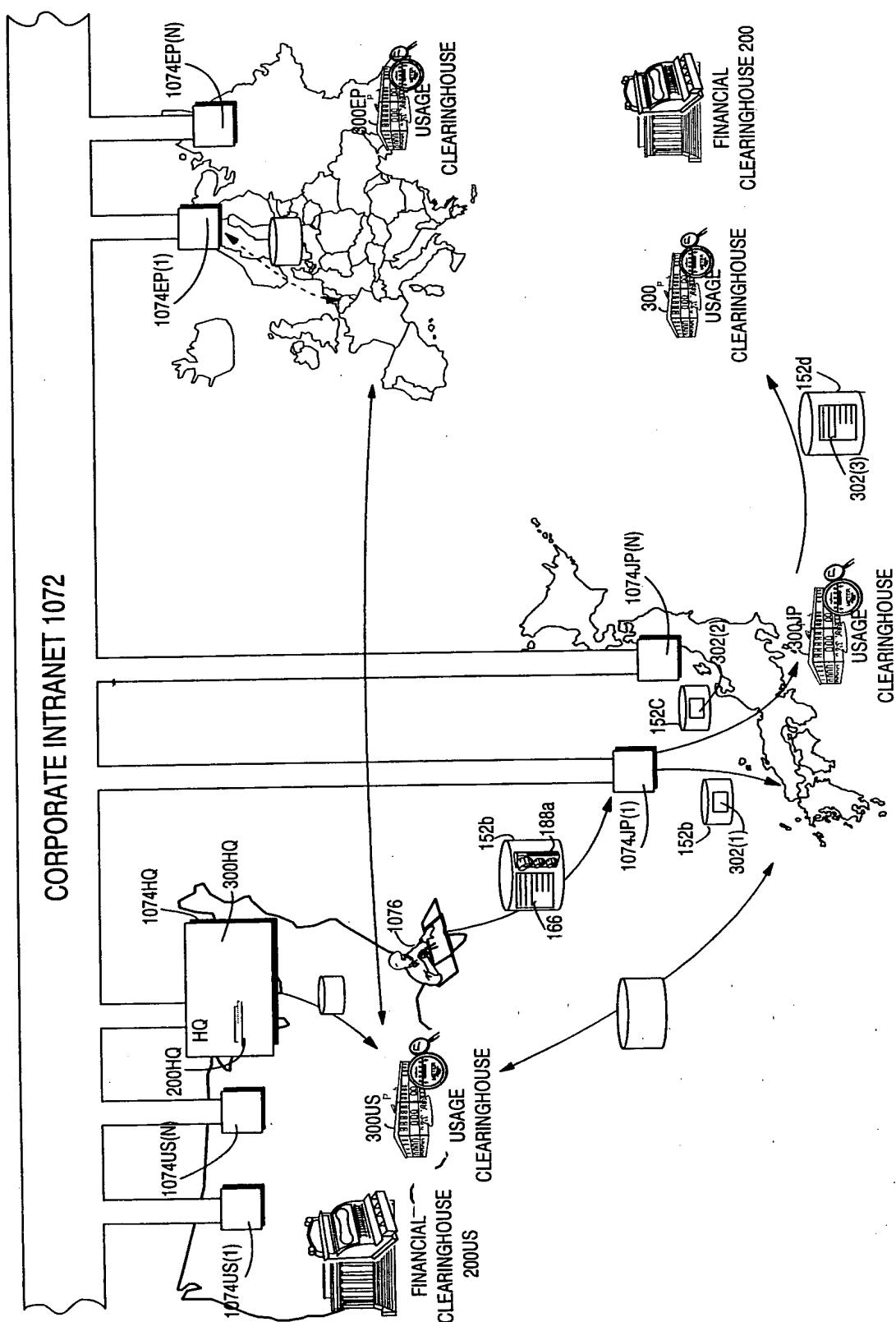


**FIG. 63** Example: Customer Securely Pays For Services

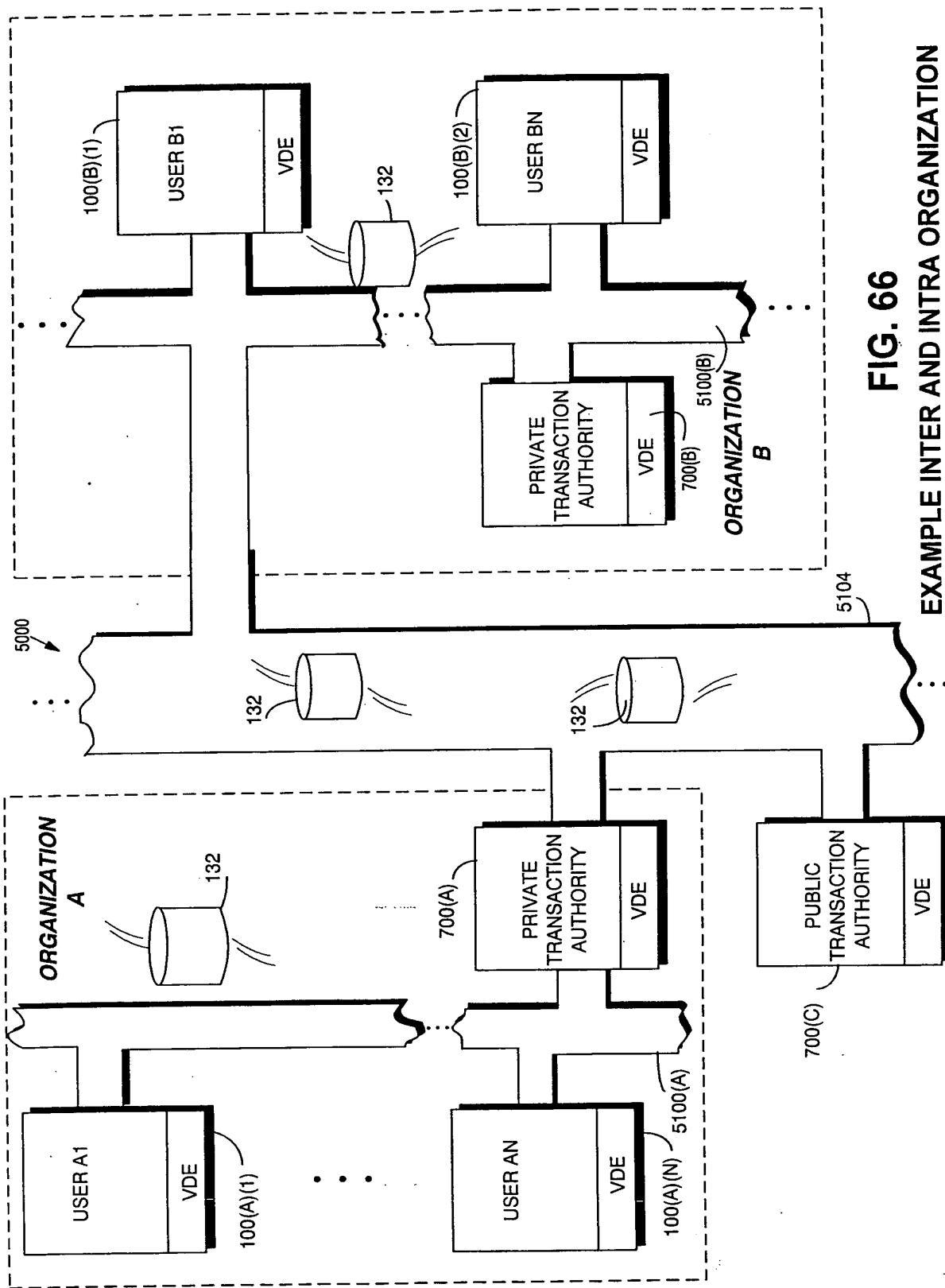


**FIG. 64** Example Value Chain Disaggregation For Purchase of Tangibles

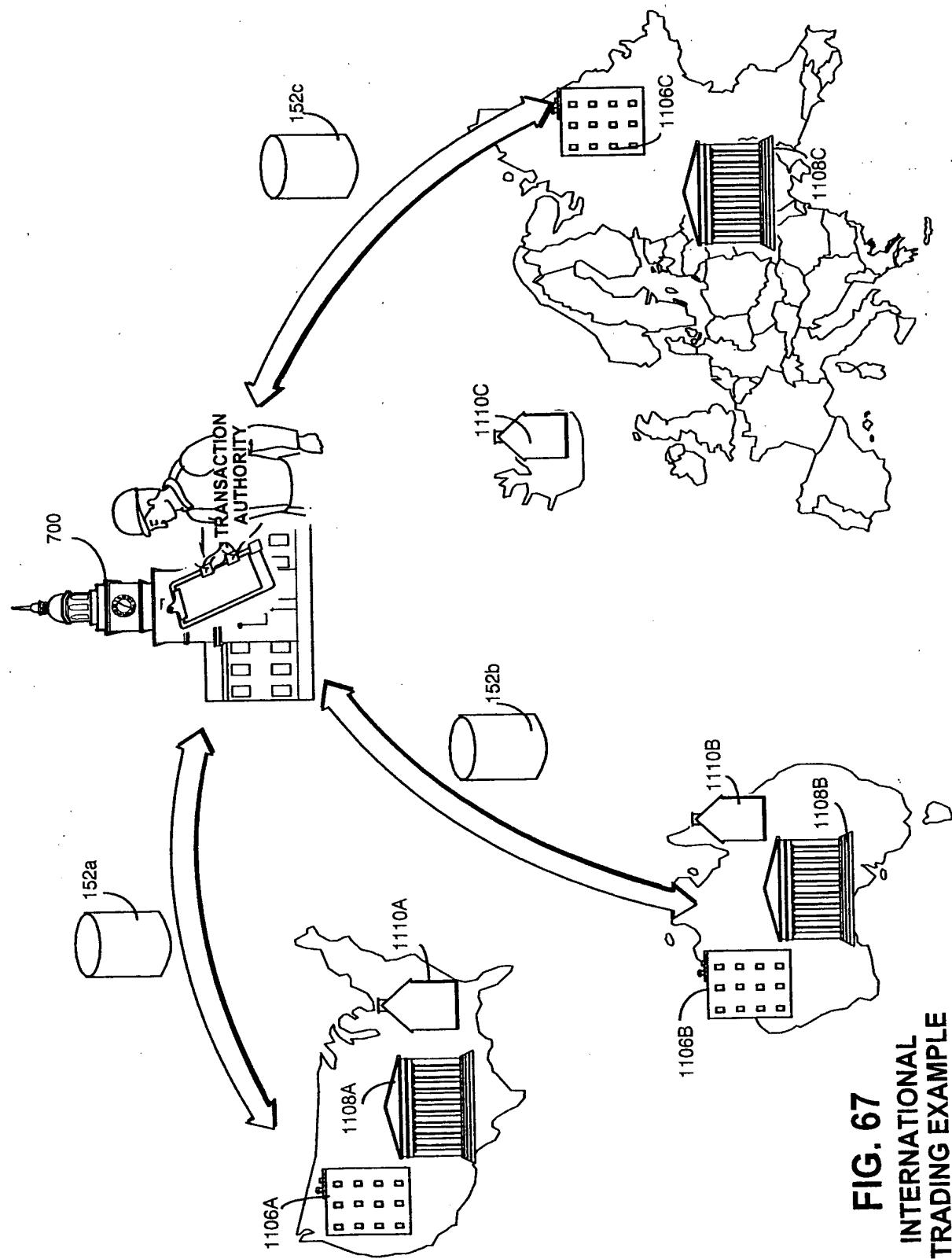




**FIG. 65** Cooperation Among Commerce Utility Systems Internal and External To An Organization



**FIG. 66** EXAMPLE INTER AND INTRA ORGANIZATION



**FIG. 67**  
INTERNATIONAL  
TRADING EXAMPLE